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Montana State Health Plan
1979-1980

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MAY, 1979

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Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

A C Knight M D F C C P
Director

DATE: April 23, 1979

TO: Interested Parties

FROM: Bryce Hughett, M.D., Chairman
Statewide Health Coordinating Council

SUBJECT: Montana State Health Plan for 1979

The Statewide Health Coordinating Council is pleased to provide this copy of the Montana State Health Plan for 1979. The development of the State Health Plan represents a major milestone for health planning in Montana. It could not have been accomplished without the help of the many concerned individuals and agencies that contributed both their time and efforts. There are many who deserve mention, but we would like to extend our gratitude to those members on the Plan Development Committee, those in attendance at the public hearing, contributing State agencies, the Health Systems Agency, and especially the staff of the State Health Planning and Development Agency.

This Plan is the first State Health Plan developed for Montana to address the health needs of all citizens on a statewide basis under P.L. 93-641. It is a Plan for quality health care services which stresses preventive measures in order to promote and maintain a high level of health.

Bryce Hughett

Bryce Hughett, M.D. Chairman

April 30, 1979

TO THE CITIZENS OF MONTANA:

The State Health Planning Committee of the SHCC is pleased to provide for your study and consideration the enclosed copy of the First Edition of the Montana State Health Plan.

This first edition is intended to serve as an educational tool which identifies major problem areas in health care in Montana and places an emphasis on prevention.

The basis of this plan provides a mechanism for communication and coordination between the present and the future.

I extend to each Committee member my personal thanks, and, on behalf of the Committee, express our gratitude to the other agencies and volunteers who provided support.

Above all, we commend the SHPDA staff for the progress, dedication and perseverance that they have displayed throughout this process.

Sincerely,

Sharon

Sharon Dieziger, Chairman
SHCC Plan Development
Committee

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ACRONYMS

ADC - Aid to Dependent Children

AHA - American Hospital Association

AIP - Annual Implementation Plan

CDC - Center for Disease Control

CMHC - Community Mental Health Center

EMS - Emergency Medical Services

EPSDT - Early and Periodic Screening Diagnosis and Treatment

ESRD - End-Stage Renal Disease

HHA - Home Health Agency

HMO - Health Maintenance Organization

HSA - Health Systems Agency

HSP - Health Systems Plan

IPO - Improved Pregnancy Outcome

MCA - Montana Codes Annotated

MIC - Maternal, Infant and Child Care Project

NICU - Neonatal Intensive Care Unit

NIMH - National Institute of Mental Health

PSHP - Preliminary State Health Plan

PSRO - Professional Standards Review Organization

SDHES - State Department of Health & Environmental Sciences

SHCC - Statewide Health Coordinating Council

SHPDA - State Health Planning & Development Agency

SMFP - State Medical Facilities Plan

SRS - Social and Rehabilitation Services, Department of

WIC - Supplemental Food Program for Women, Infants and Children

GLOSSARY OF TERMS

ACCEPTABILITY: An assessment of medical care in terms of such factors as cost, quality, outcome, convenience of care, and provider attitudes.

ACCESSIBILITY: A measure of the degree to which the system inhibits or facilitates the ability of an individual or group to gain entry and receive appropriate services, including geographic, architectural, transportation, social, time and financial considerations.

ACUTE DISEASE: A disease which is characterized by a single episode of a fairly short duration from which the patient returns to his normal or previous state and level of activity.

ANNUAL IMPLEMENTATION PLAN (AIP): A document which the National Health Planning and Resources Development Act of 1974 (P.L. 93-641) requires health systems agencies to prepare or update annually, specifying how the agency will achieve the priority goals and objectives detailed in its health systems plan (HSP).

AMBULATORY SETTING: The provision of health care services to patients who travel to the provider to receive services. An ambulatory setting has no regular provision for patients to stay overnight.

APPROPRIATENESS REVIEW: Under Section 1513 (g) of P.L. 93-641 each HSA must review on a periodic basis (but at least every five years) all existing institutional health services in its health service area, and make recommendations regarding the appropriateness of those services to the SHPDA. A finding of appropriateness means a finding that a service meets the needs of a population, in accordance with criteria established by the HSAs and the SHPDA.

AVAILABILITY: A measure of the appropriate supply and mix of health services and the capacity of resources for providing care.

BED NEED: The number of hospital (or other medical care) beds required for adequate provision of services to a defined population at a specified point in time.

CERTIFICATE OF NEED (CON): A regulatory process of which the principal purpose is to help control the rising costs of health care by monitoring the construction of facilities, purchase of equipment or initiation of health programs.

CHRONIC DISEASE: A disease which has one or more of the following characteristics: is permanent; leaves residual disability; is caused by nonreversible pathological alterations; requires special training of the patient for rehabilitation; or may be expected to require a long period of supervision, observation or care.

CONSUMER: One who may receive or is receiving health services. While all people at times consume health services, a consumer as the term is used in health legislation and programs is usually someone who is never a provider, i.e., is not associated in any direct or indirect way with the provision of health services. The distinction has become important in programs where a consumer majority on the governing body is required, as is the case with community health centers and health systems agencies assisted under the PHS Act.

CONTINUITY: A measure of the degree of effective coordination of effort in providing services to the patient which enables him to move easily throughout the system regardless of whether care is provided in one setting or multiple settings.

COOPERATIVE HEALTH STATISTICS SYSTEM (CHSS): A program in which State, Federal, and local governments cooperate in collecting health-related statistics.

COST: The total economic value of resources required to provide services, including all financing expenditures, especially expenditures for capital and operating requirements.

COST CONTAINMENT: The control of the overall cost of health care services within the health care delivery system.

CARDIOPULMONARY RESUSCITATION (CPR): An emergency technique used to revive victims of cardiac arrest.

CT SCANNERS (COMPUTERIZED TOMOGRAPHIC SCANNERS): Radiological machines which record variations in bone and tissue densities which are produced by X-ray beams passing through a patient's body.

DEMAND: The amount of a given service sought by consumers or providers in response to their perceived need for that service.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE (DHEW): The Federal level executive branch agency charged with the regulation of most Federal health programs.

DIAGNOSIS: The identification of a disease based on its symptomatic conditions.

DIAGNOSIS AND TREATMENT SERVICES: Services for evaluating the health status of individuals and identifying and alleviating disease and ill-health or the symptoms thereof.

DISABILITY: Any temporary or long-term reduction of a person's activity as a result of an acute or chronic condition.

EMERGENCY MEDICAL SERVICES (EMS): Services provided to individuals with severe, life-threatening, or potentially disabling conditions that require immediate medical intervention.

ENVIRONMENT: Includes all those matters related to health which are external to the human body and over which the individual has little or no control.

EPIDEMIOLOGY: The study of the nature, cause, control, and determinants of the frequency and distribution of diseases and disability in human populations.

END STAGE RENAL DISEASE (ESRD): That stage of kidney impairment that requires dialysis or kidney transplantation or both to maintain life or health.

EXCESS HOSPITAL CAPACITY: Any hospital capacity which contributes unnecessarily to per capita health care expenditures if alternative, less expensive medical (or non-medical) means exist to achieve equal levels of health.

FERTILITY: The ratio of the number of births per year to the number of women of childbearing age, usually between 15 and 45 years of age.

FETAL DEATH: Death of an unborn child.

FETAL MORTALITY: Still-births over nineteen weeks gestation.

FREE-STANDING SUPPORT SETTING: A location where health services are provided which support the delivery of personal health care services without providing direct patient care, and which is not a component of an organization which delivers personal health care services in another setting. An example of this might be a laboratory which is not part of a hospital or other health facility.

GOAL: A statement of desired health status or health systems achievement put in quantitative terms wherever possible.

GOAL LEVEL: Standards of goal attainment expressed in terms of levels or indicators for the best attainable health status or health system performance.

HABILITATION AND REHABILITATION SERVICES: Services to restore the ill or disabled individual to, or to assist the developmentally disabled individual to achieve, the fullest physical, mental, social, vocational and economic usefulness of which he is capable.

HEALTH CARE ORGANIZATION: Consists of the quantity, quality, arrangement, nature, and relationships of people and resources in the provision of health care. It includes medical practice, nursing, hospitals, nursing homes, medical drugs, public and community health care services, ambulances, dental treatment and other health services such as optometry, chiropractics and podiatry.

HEALTH EDUCATION SERVICES: Services directed towards informing, educating, and motivating the public to adopt personal lifestyle and nutrition practices which promote optimal health, avoid health risks, and make appropriate use of health care services in the community.

HEALTH MANPOWER: All individuals employed in health-related professions.

HEALTH MAINTENANCE ORGANIZATION (HMO): Organized system for health care delivery which provides comprehensive medical services to enrolled members for a fixed, prepaid annual fee.

HEALTH PLANNING: A process which establishes desired future levels for health status and health system performance, designs and selects among alternative actions aimed at modifying the health system so that future levels of both health status and health system performance conform to desired levels, and suggests steps for implementation of the recommended actions.

HEALTH PROBLEM: Any situation which negatively impacts upon the physical or mental health of the community.

HEALTH RESOURCES: Human, monetary, or material resources used in providing health care and health care services.

HEALTH SERVICE AREA: A geographic region appropriate for the effective planning and development of health services, determined on the basis of factors including population and the availability of resources to provide all necessary health services for the residents of the area.

HEALTH STATUS: The position of a specified population in terms of its health characteristics relative to other population areas.

HEALTH SYSTEMS AGENCY (HSA): Designated non-profit or public entity for the health service area. Each agency will have several responsibilities under Public Law 93-641. Major emphasis will be on establishment, annual review, and amendment of a health system plan (HSP) for the area. The plan must contain a detailed statement of regional goals which describe the health systems in the area and will assure that quality health service will be available and accessible to all residents of the area at a reasonable cost.

HEALTH SYSTEM ENABLING SERVICES: Organized activities designed to influence the means by which, and conditions under which, health system services are delivered. This includes health planning, resources development, financing, regulation, and research.

HEALTH SYSTEMS PLAN (HSP): A document presenting the decisions reached by the HSA Board as to broad strategic directions and health resource changes recommended over the next five years or more, to alter the future health system in order to attain explicitly stated goals and long-term objectives.

HEALTH SYSTEMS TAXONOMY: A conceptual framework utilized in organizing, inventorying, and analyzing the health care system. The taxonomy includes three dimensions: health services, the settings in which health services are delivered, and service characteristics by which the performance of the health system is analyzed.

HIGH RISK POPULATION: Those population groups whose genetic, social and/or environmental conditions predispose them to ill health.

HOME SETTING: Providing health care services in the patient's residence with the result that the patient does not travel in order to receive services.

HOMEMAKER SERVICES: Services designed for persons (primarily elderly) who live alone and do not have acute medical problems, but who are not able to perform some tasks basic to their everyday existence, such as cooking meals, shopping for food, cleaning, and maintaining personal hygiene.

HUMAN BIOLOGY: Includes all those aspects of health, both physical and mental, which are developed within the human body as a consequence of the basic biology of man and the organic make-up of the individual. This element includes the genetic inheritance of the individual, the processes of maturation and aging, and the many complex internal systems in the body, such as skeletal, nervous, muscular, cardio-vascular, endocrine, digestive and so on.

INTERMEDIATE CARE FACILITY FOR THE MENTALLY RETARDED (ICF/MR): A facility designated for the habilitation of the mentally retarded and where reimbursement is under the Federal Medicaid program. Services include the delivery of medical, dental, and social services.

INCIDENCE: The number of new cases of a disease occurring during a specified time period.

INCIDENCE RATE: Number of new cases of a disease divided by the population at risk over a period of time.

INDICATOR: A quantitative measure chosen to reflect the health status of the population or to represent how well the health system is performing.

INFANT MORTALITY RATE: Number of deaths in a year of children less than one year of age divided by the number of live births in the same year; per 1,000 live births.

INFECTIOUS DISEASE: Any disease caused by a pathogenic organism entering the human body.

INPATIENT CARE: Services rendered on a 24-hour basis, under the direction of a physician, to patients admitted to a health care facility.

LICENSE: A permission granted to an individual or organization by a regulatory authority, usually public, to engage in a health-related practice, occupation, or activity. Licensure is the process by which the license is granted.

LIFE EXPECTANCY: The age that an individual has the greatest probability of reaching.

LIFESTYLE: Consists of the aggregation of decisions by individuals which affect their health and over which they more or less have control.

LONG-STAY SETTING: Providing health care services to patients who stay overnight in the institution, fifty percent or more of whom remain in the institution thirty days or longer. A long-stay setting may be the usual place of residence of some or all of its patients.

LONG-TERM CARE: Health and/or personal care services required by persons who are chronically ill, aged, disabled, or retarded, in an institution or at home, on a long-term basis.

MAINTENANCE SERVICES: Services provided to individuals with chronic physical and mental ill-health conditions in order to prevent deterioration in those conditions, as well as services provided to individuals in need of assistance in activities of daily living. The purpose of such services is to enable an individual to participate in the community to the fullest degree to which that individual is capable. Maintenance services do not include habilitative or rehabilitative services, since the primary purpose of the latter service is to increase functional ability rather than maintain an existing level of function.

MEDICAID: Popular name for Title XIX of the 1965 Social Security Act which provides most medical care for persons eligible under various Department of Health and Rehabilitative Services criteria. It generally assists low-income persons of all ages who are unable to provide necessary medical care for themselves.

MEDICARE: Popular name for Title XVIII of the 1965 Social Security Act which authorizes hospitalization and certain other benefits to qualified persons (persons paying into social security) usually over the age of 62.

MENTAL HEALTH: A state of being which is relative rather than absolute in which a person has effected a reasonably satisfactory integration of his instinctual drives. His integration is acceptable to himself and to his social milieu as reflected in his interpersonal relationships, his level of satisfaction in living, his actual achievement, his flexibility, and the level of maturity he has attained.

METHODOLOGY: The principles and approach used to organize information.

MOBILE SETTING: Providing health care services at temporary locations selected for their convenience to a geographically selected target population using a movable vehicle or facility or a provider which provides health care services during transportation of patients.

MORBIDITY DATA: Statistics describing the occurrence, distribution, and causes of illness in a defined population.

MORTALITY: The ratio of the number of deaths to the total population in a given period of time.

MORTALITY DATA: Statistics describing the occurrence, distribution, and causes of death in a defined population.

THE NATIONAL HEALTH PLANNING AND RESOURCES DEVELOPMENT ACT OF 1974 (P.L. 93-641): This act amends the Public Health Service Act and replaces the Hill-Burton, CHP and Regional Medical Programs. P.L. 93-641 adds the following key titles (sections) to the Public Health Service Act: Title XV - This new section establishes the National Health Planning and Resources Development program; Title XVI - This replaces the Hill-Burton loan program for hospital and facility construction and modernization.

NEED: An estimation, based on professional judgement, of the number, type, and level of services and resources necessary to provide for a certain standard of health care. Needs may or may not be perceived or expressed by the person in need and must be distinguished from demands, expressed desires whether or not needed.

NEO-NATAL MORTALITY: Death of a child less than twenty-eight days old.

NEONATAL INTENSIVE CARE UNIT (NICU): A hospital obstetric unit specially equipped and staffed for the care of high-risk newborns and their mothers.

NURSING HOMES: Generally, a wide range of institutions, other than hospitals, which provide various levels of maintenance and personal or nursing care to people who are unable to care for themselves and who may have health problems which range from minimal to very serious. The term includes free standing institutions, or identifiable components or other health facilities which provide nursing care and residential care. Nursing homes include skilled nursing facilities, intermediate care facilities, and extended care facilities, but not boarding homes.

OBSTETRIC SERVICES: Services for the promotion and maintenance of optimum mental and physical well-being of the individual woman and her child from the onset of labor until the end of the perinatal period.

OBJECTIVE: A quantified statement of a desired future state or condition with a stated deadline for achieving the objective.

OCCUPANCY RATE: A measure of inpatient facility calculated by dividing available bed days by patient days.

OUTREACH: To use workers to seek out those who need health care services and who may not otherwise know that health care is available to them.

PEER REVIEW: The evaluation by practicing physicians or other professionals of the effectiveness and efficiency of services ordered or performed by other practicing physicians or other professionals whose work is being reviewed.

PER DIEM RATE: Institutional costs per day of care.

PERFORMANCE STANDARD: Criteria established by the Department of Health, Education, and Welfare to assess health planning and resource development agencies' achievement.

PERINATAL MORTALITY RATE: The number of late fetal deaths (28 weeks or more) plus the number of infant deaths before the 7th day of life divided by the total number of births. This is usually expressed as a rate per 1,000 live births in a given area and time period.

PERSONAL HEALTH CARE SUPPORT SERVICES: Services which do not involve direct medical care, but facilitate the provision of personal health care services.

PLAN: A detailed statement of goals, objectives, and how to achieve these goals and objectives.

PLANNING: The conscious design of desired future states (described in a plan by its goals and objectives, and description and selection among alternative means of achieving the goals and objectives), and the conduct of the activities necessary to the designing (such as data gathering and analysis) and the activities necessary to assure that the plan is achieved.

POLICY: A statement of what is intended for guidance; courses or alternatives to follow under conditions; standards for making decisions.

POPULATION-BASED PLANNING: Simply stated, population-based planning attempts to analyze what the people in the area need and not what institutions are now providing or may desire for the future.

PREVALENCE: The number of cases (diseases) present or currently existing at a particular point in time.

PREVENTION AND DETECTION SERVICES: Those services delivered to individuals in order to promote optimal physical and mental well-being, including protection from the development of disease and ill health, or those services which identify disease or ill health at the presymptomatic or unrecognized symptomatic stage.

PRIMARY CARE: Basic or general health care which emphasizes the point when the patient first seeks assistance from the medical care system and the care of the simpler and more common illnesses. The primary care provider usually also assumes ongoing responsibility for the patient in both health maintenance and therapy of illness. It is comprehensive in the sense that it takes responsibility for the overall coordination of the care of the patient's health problems, be they biological, behavioral or social.

PRIMARY CARE PROVIDER: By accepted definition, primary care providers include those in general practice, family practice, internal medicine, pediatrics, and obstetrics/gynecology. Other health professionals engaged in the delivery of primary care include optometrists, podiatrists, chiropractors, pharmacists, and physician extenders-physician assistants, nurse practitioners and clinical nurse specialists.

PROFESSIONAL STANDARDS REVIEW ORGANIZATION (PSRO): Federally sponsored organization charged with comprehensive and ongoing review of services provided under the Medicare, Medicaid and Maternal and Child Health programs. The purpose of this review is to determine for purposes of reimbursement under these programs whether services are: medically necessary; provided in accordance with professional criteria, norms and standards; and, in the case of institutional services, rendered in an appropriate setting. See also "peer review".

PROJECT REVIEW: The State and Health Systems Agency function of review and approval or rejection of proposed projects funded by Federal health monies.

PROPHYLAXIS: Measures designed to preserve health and prevent the spread of disease.

PROVIDER: A person who earns most of his living by providing health services; someone who is employed by a health care institution or agency; a health care professional, such as a doctor.

PRELIMINARY STATE HEALTH PLAN (PSHP): This Plan is a detailed statement of goals for improvement in the health status of the State's population and in the delivery of health services. The Preliminary State Health Plan is submitted to the Statewide Health Coordinating Council for approval or disapproval and for use in developing the State Health Plan (SHP).

QUALITY: A measure of the degree to which health services delivered meet established professional standards and judgements of value to the consumer. Quality is frequently described as having three dimensions: Quality of input resources (e.g., certification and/or training of providers - both manpower and facility factors); quality of the process of service delivery (e.g., the use of appropriate procedures for a given condition); and quality of outcome of service use (actual improvement in condition or reduction of harmful effects).

RATIONALE: A discussion of a health concern, some issues involved, and some methods of dealing with the concern.

RECOMMENDED ACTION: A statement of activity which, if implemented, is expected to contribute to the achievement of the objectives.

REGULATION: Government or accreditation associations intervene in the health system by means of rules and regulations which typically influence, control or set standards relative to the services provided, the settings and resources by which these services are provided, and the manner in which providers of service are reimbursed.

REIMBURSEMENT: The process by which health care providers receive payment for their services or costs.

RISK FACTOR: Any factor which detrimentally contributes to or impacts upon the physical or mental health of an individual.

SECONDARY CARE: Services provided by medical specialists who generally do not have first contact with patients (e.g., cardiologists, urologists, dermatologists).

SECTION 1122: That section of the Social Security Act pertaining to changes in facilities or services as they relate to payments from Medicare and Medicaid, Title XI of PL 92-603.

SETTING: The physical location where health care services are provided.

SHARED SERVICES: The coordinated, or otherwise explicitly agreed upon, sharing of responsibility for provision of medical or non-medical services on the part of two or more otherwise independent hospitals or other health programs. The sharing of medical services might include, for example, an agreement that one hospital provide all pediatric care needed in a community and no obstetrical services while another undertook the reverse. Examples of shared non-medical services would include joint laundry or dietary services for two or more nursing homes.

SIGNIFICANT OTHERS: Friends, associates, peers and family.

STATEWIDE HEALTH COORDINATING COUNCIL (SHCC): A statewide health advisory council designed to advise and review operations of the State Health Planning and Development Agency.

SHORT-STAY SETTING: Providing health care services to patients who stay overnight in the institution, 50 percent or more of whom return to their normal place of residence within less than 30 days of entering the institution.

STATE HEALTH PLANNING AND DEVELOPMENT AGENCY (SHPDA): The agency or State government that conducts the health planning, resource development, and regulatory functions prescribed by P.L. 93-641.

STATE MEDICAL FACILITIES PLAN: A document presenting the decisions reached by the State Health Planning and Development Agency (SHPDA) and approved by the State Health Coordinating Council (SHCC) specifying the State requirements for medical facilities and priorities for assistance.

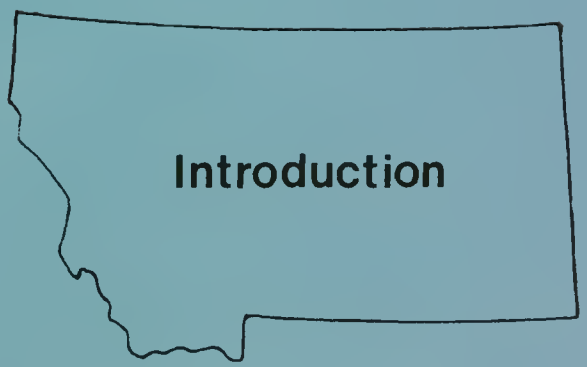
TARGET POPULATION: The population group or subgroup toward which services are directed.

TERTIARY CARE: Services provided by highly specialized providers (e.g., neurologists, neurosurgeons, thoracic surgeons, intensive care units). Such services frequently require highly sophisticated technological and support facilities.

THIRD PARTY REIMBURSEMENT: A method for the payment of medical care in which the actual payor is neither the provider nor the recipient of the care.

UTILIZATION: The amount of use derived from a given health resource (manpower, equipment, etc.) in relation to its maximum potential use.

VITAL STATISTICS: Statistics relating to births (natality), deaths (mortality), marriages, health and disease (morbidity).



Introduction

PREFACE

It is recognized that many agencies, groups, organizations, and health associations have long been in the business of developing plans, accumulating data, and delivering health care services in Montana. The effort of these numerous groups has been responsible for the development of a well-functioning and sophisticated health care delivery system in this State.

Many State agencies have developed and effectively implemented statewide plans for delivery of services in the public sector on very limited budgets.

Under the free enterprise system, in the private sector, a network of well-trained professionals has developed who are dedicated to the delivery of health care services to all the people.

Montana health care institutions have, by a combination of private and public initiative, assumed the responsibility of caring for the institutional needs of Montana citizens.

It is hoped that this State Health Plan will build upon that which is already in existence. Plans and practices with a long history of successful implementation are not to be disregarded or discarded, but to be reexamined in the light of present day need. Gaps, inequities, and duplications are to be searched out and identified. Old data should be reanalyzed and new data should be developed to determine where we are being effective, and where we are being ineffective, in health care delivery. There should be a broader determination of need as it exists and is unmet in Montana. Special ethnic, economic, and social problems must receive extended consideration. The needs, and indeed the desires, of the health care consumer must be addressed.

There is an escalation of the cost of health care. Although many causes of this escalation of cost are under neither provider nor consumer control, it exists and must be carefully considered, evaluated, and managed. A balance of how much health care we need, how much care we want, and how much health care we can afford must be carefully addressed.

INTRODUCTION

The Montana State Health Plan for 1979 serves as a base-line for future incremental planning by the Statewide Health Coordinating Council (SHCC), the State Health Planning and Development Agency (SHPDA), and all health-related agencies and groups within State government. It is not intended to be a document which mandates changes in consumer/provider behavior, nor is it an attempt to force change in Montana's health system. Rather, it is hoped that the State Health Plan will be used as a central framework to influence change in the current system through systematic development of State and area level health plans.

This document is fluid. It is not fixed in concrete. It is first generation. It will change from year-to-year to meet perceived needs. It will consider new methods and weigh them carefully against old methods. Without discarding the tried and proven, it will hope to integrate new and innovative ideas and concepts. But most of all, it will cause segments of the community to be introspective in their approach and will act as a catalyst to put in print a coordinated State health policy.

The mission of health planning is ultimate in nature. Public Law 93-641 offers a focus, direction, and mandate that is ambitious and provides a unique opportunity worthy of best efforts.

BACKGROUND

The health care service delivery system merits serious attention. This has been reflected in recent federal legislative mandates that have emphasized maintaining the quality of health care while containing the cost. It is why the State Health Planning and Development Agencies, the Statewide Health Coordinating Councils, the Health Systems Agencies and consumers and providers across the United States have the unique opportunity to improve the health status of Americans by increasing the accessibility, availability, acceptability, continuity and quality of health services and restraining increases in the costs of health services.

The Hill-Burton Act of 1946, and amended in 1964, and the Regional Medical Program (PL 69-239, 1965) were the precursors

to the real beginning of comprehensive health planning which was established in the Partnership for Health Act of 1966 (PL 89-749). This Act provided financial resources for state and areawide health planning agencies throughout the country. These agencies played a major role in determining what activities should be undertaken within the sphere of comprehensive health planning. Following the 1974 assessment of these agencies and the expiration of PL 89-749, Congress passed Public Law 93-641, the National Health Planning and Resource Development Act of 1974, the purpose of which was the creation of a national health planning system. This led to the establishment of 213 health service areas throughout the United States, each served by a Health Systems Agency (HSA). For purposes of statewide coordination and planning, every state has a designated State Health Planning and Development Agency (SHPDA) and a Statewide Health Coordinating Council (SHCC) appointed by the Governor.

These findings of Congress in the area of health were precisely stated in PL 93-641. Major findings include:

...Massive infusions of Federal funds had contributed to inflationary increases in the cost of health care while concurrently failing to produce an adequate supply or distribution of health resources.

...Despite the number and diversity of responses by both the private and public sectors, a comprehensive, rational approach had not resulted in addressing the:

a. lack of uniformly effective methods of delivering health care;

b. maldistribution of health care facilities and manpower; and

c. increasing cost of health care.

...Increases in the cost of health care, particularly of hospital stays, have been uncontrolled and inflationary. Also, there are inadequate incentives for the use of appropriate alternative levels of health care, and for the substitution of ambulatory and intermediate care for inpatient hospital care.

...It is imperative that providers play an active role in developing health policy for their legitimate needs and concerns.

...There is a basic lack of knowledge with regard to proper personal care and methods for effective utilization of available health service among some of the population.

Thus, a health planning and coordinating network, including communities, was established to attempt to improve these problems. The purpose of this network is to:

...Improve the health of residents;

...Increase the accessibility, acceptability, continuity, and quality of health care services;

...Restrain increases in the cost of providing health services; and

...Prevent unnecessary duplication of health resources.

STRUCTURE AND ORGANIZATIONAL RELATIONSHIPS

Montana is a single Health Systems Agency (HSA) State. The HSA is a non-profit, private corporation with a governing body made up of health care providers and a majority of consumers.

Among its responsibilities, the HSA must develop and annually update a Health Systems Plan (HSP). The Plan is a five year projection of desired goals or achievements for improvement in the health status of Montana residents and in the health system serving that population. An Annual Implementation Plan (AIP) must also be completed each year to describe objectives which will achieve the goals of the HSP and to set priorities among the objectives. Both the HSP and the AIP are developed with input from five regional subarea councils and should, in the end, be the reflection of community needs and desires.

Other major functions performed by the Health Systems Agency include:

1. Collection and analysis of data concerning health status, the health care delivery system, health resources, utilization of health resources, and environmental factors affecting the population.

2. Coordination of activities with the Professional Standards Review Organizations (PSRO's), regional planning agencies, and other appropriate general or special purpose regional planning or administrative agencies.

3. Review and approval or disapproval of proposals for Federal funds distributed under the Public Health Service Act, Community Mental Health Centers Act, and Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970.

4. Assisting the State Health Planning and Development Agency (SHPDA) in review of the need for new institutional health services and other capital expenditures for health facilities.

5. Review of existing institutional health services in order to advise the SHPDA of the appropriateness of these services.

6. Recommendations to the SHPDA on projects for modernization, construction, and conversion of health facilities which will achieve the objectives of the HSP and AIP.

7. Provision of technical assistance to entities involved in implementing areawide health plans.

The Statewide Health Planning and Development Agency (SHPDA) is responsible for addressing Montana State government's health and health-related policies and programs, and conducting statewide health planning activities. The Department of Health and Environmental Sciences, Division of Hospital and Medical Facilities, Bureau of Health Planning and Resource Development, has been designated by the Governor as the Montana SHPDA. The legal authority was submitted to the Secretary of HEW, pursuant to PL 93-641.

One of the Agency's major responsiblities is the development of a Preliminary State Health Plan (PSHP). The PSHP was submitted to the Statewide Health Coordinating Council (SHCC) and approved in September, 1978. This Plan was used in the development of the State Health Plan. Some of the other major functions of the SHPDA include:

1. Assist the SHCC in the review of the State Medical Facilities Plan and in the performance of its general functions.

2. Administer the State Certificate of Need Program.

3. Review all institutional health services in the State on a periodic basis.

4. Implement those parts of the State Health Plan and the plans of the Health Systems Agency that relate to the government of the State.

5. Coordinate all health planning data activities within the State.

6. Serve as the designated planning agency for capital expenditure review under Section 1122 of the Social Security Act.

7. Administer federally-assisted facilities construction activities in the State.

8. Review and make findings concerning all new institutional health services in the State.

9. Develop and revise a State Health Plan at least annually.

The State Health Planning and Development Agency is advised by an eighteen member Statewide Health Coordinating Council (SHCC) appointed by the Governor which includes a majority of consumers of health care.

The role of the SHCC is gradually emerging and its importance is unmistakable. First, it is a freestanding body, an entity with specific authority and responsibility for being the determinant body for statewide health planning. It is, in fact, the steward of the entire planning network which should exert a significant advisory and coordinating effort to make meaningful the full range of planning activities at both the local and State levels. Secondly, the SHCC is the indispensable, primary and overriding decision-maker in the planning network.

Plan coordination is one of the major functions of the SHCC. In addition to the establishment of the State Health Plan which can, if found necessary, contain revisions of the Health Systems Plan to achieve appropriate coordination or to deal more effectively with statewide health needs, and to establish statewide planning guidelines. Within these guidelines, the SHCC clarifies the roles and responsibilities of the HSA, the SHPDA and SHCC with respect to the development of health plans. They include a common form of organization, procedures to be followed, sequence of events, and a timetable for development. Within the SHCC, the standing committee on Plan Development reviews, revises, and makes recommendations to the full Council on all matters pertaining to plan development and the State Health Plan. Other standing committees of the SHCC should be formed to manage legislation, cost containment, and grants review.

In summary, the functions of the SHCC include:

1. Review annually and coordinate the HSP and the AIP of the HSA, review their budgets and application for Federal grant assistance, and report findings to the Secretary of HEW.

2. Review and where necessary require revision of the HSP to reflect statewide needs and priorities.

3. Prepare, review, and revise as necessary (at least annually) a State Health Plan.

4. Review, consider, and hold public hearings on a Preliminary State Health Plan (prepared by the SHPDA) in the preparation and revision of the State Health Plan.

5. Advise the SHPDA through counsel, caution, and direction on the performance of its functions.

6. Review annually and approve or disapprove any State plan and any application submitted to the Secretary of HEW as a requirement to the receipt of certain Federal funds from allotments made to the State under the Public Health Service Act, the Community Mental Health Centers Act, and the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970.

PURPOSE OF THE STATE HEALTH PLAN (SHP)

According to the Federal Guidelines related to the development of the State Health Plan, its purposes are:

1. To develop a coordinated and comprehensive approach to the identification and resolution of health problems within the State.

2. To develop and articulate State health and health-related policies.

3. To guide resource allocation in the achievement of equal access to quality health care at a reasonable cost.

Another purpose of the State Health Plan is to provide its readers with an educational tool. As may be noted through the in-depth needs assessment, lifestyle, environment, and human biology play a huge role in the health status of Montanans. It is hoped that the readers will see the necessity to promote health and prevent illness as improving the quality of life for the State's citizens in addition to being a cost effective approach.

The State Health Plan is "made up" of the Health Systems Plan in that, to the extent possible, it reflects its priorities and goals. At the same time, the SHP attempted, through independent analysis, to address areas deserving special attention at the State level which may not necessarily surface in the HSP. The scope, focus and level of detail will vary, as appropriate, from the HSP to the SHP. Although each may

address some of the same statewide needs, the approaches to solving the problem will vary according to what is most effective at that level. Ultimately, then, the HSP and the SHP should complement, as well as be consistent with, each other.

THE PLAN DEVELOPMENT PROCESS

The Federal Guidelines for plan development stress an analytical approach. This includes population-based characteristics, a review of the health care delivery system, the interrelationships within that system, and policies pertaining to the system. The approach taken by the SHPDA for accomplishing this was the problem-oriented process as shown in Figure 1.

Public Law 93-641 allows for an independent preparation of a Preliminary State Health Plan to be prepared by the SHPDA to be submitted to the SHCC. The PSHP was, in large, a basic inventory of State government's health and health-related policies and programs. (Appendix VI)

Four primary steps were involved in the planning process: identification of statewide health problems, problem analysis, development of goals and objectives and recommended actions. The products of each problem analysis were distributed for review and comment to members of the SHCC, the HSA, providers, and State governmental agencies. All of their comments were considered throughout the process and in the development of the final document.

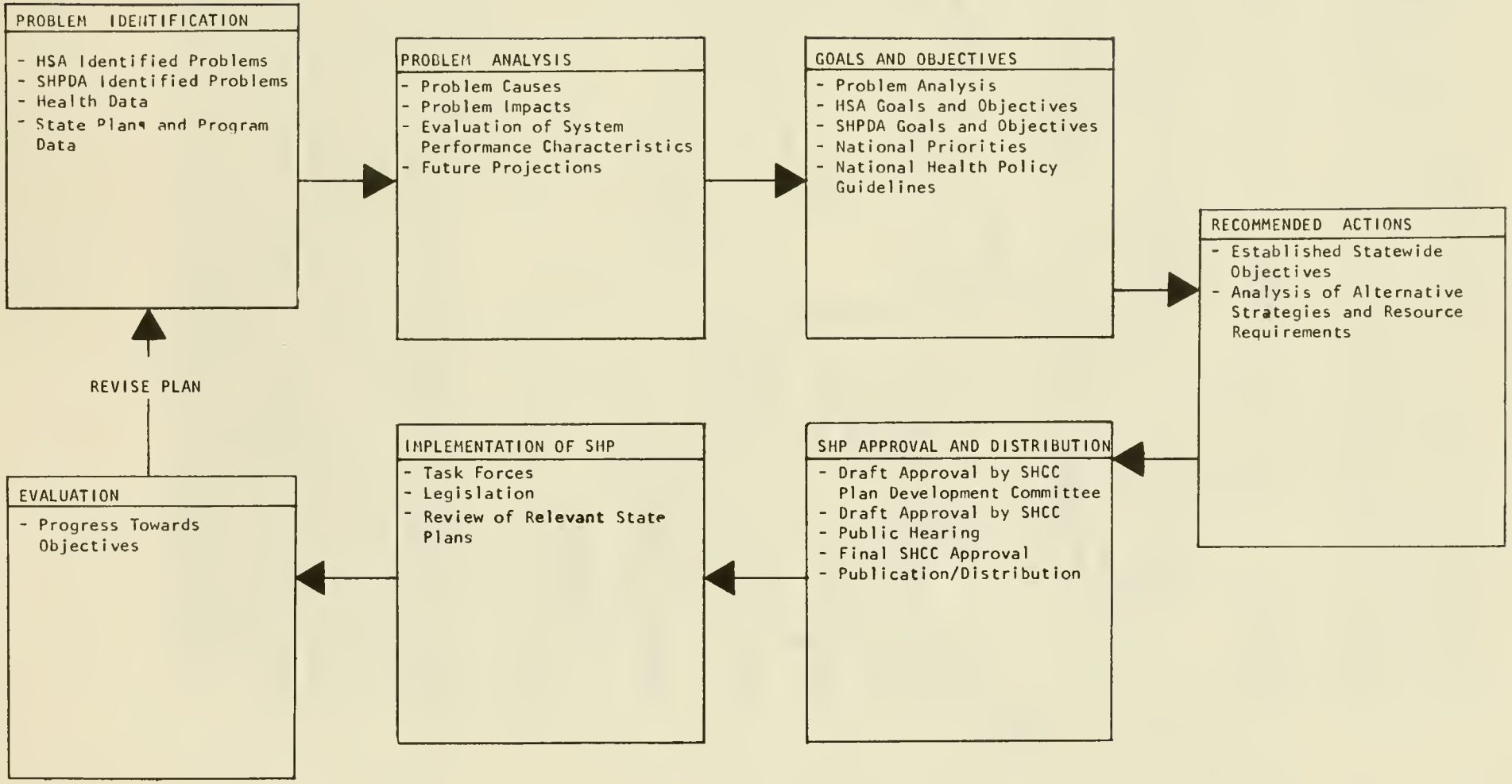
1. Problem Analysis:

   The greatest expenditure of staff and review time went into the problem analysis phase of plan development. For each of the health status problems, mortality and morbidity trend data were analyzed and population at-risk groups identified. Causes and effects of the problems were discussed as they related to lifestyle, environment, biological factors, and health care organization. Health system analyses focused primarily on the six characteristics of cost, availability, accessibility, continuity, quality and acceptability.

   Each of the ten analyses was circulated and revised in response to comments received and became the basis for development of statewide goals, objectives, and recommended actions. Although the analyses were as extensive as available staff time and data permitted, many of the analyses should be expanded and policy issues revisited.

Figure 1

THE STATE HEALTH PLAN DEVELOPMENT PROCESS



2. Development of Goals and Objectives:

State health policy is primarily reflected through the goals and objectives which are, in turn, a guide to resource allocation and a commitment to promotion of health, prevention of illness, and cost containment.

According to the Federal Guidelines concerning the development of State Health Plans, goals are defined as:

> "...the basic framework for the plan focusing directly on particular health issues or concerns. They are unconstrained by the present planning horizon and are not stated in terms of community or provider action. Goals are expressions of desired conditions of health status and health systems expressed as quantifiable, timeless, aspirations. Goals should be both technically and financially achievable and responsive to community ideals."

Goals, then, are statements of policy and desired end states. As general statements of policy, the goals, by and large, were not quantified, although they subsequently became "quantifiable" through the use of goal levels and objectives.

Goal levels are defined as:

> "Quantifiable targets set to indicate the achievement of specific goals...and...are usually based on a comparison of one area's health status and systems performance with comparable data from similar planning areas, comparison of sub-groups within the HSA's area (regions in Montana, see Figure 2,) and the medical and professional state-of-the-art as expressed by qualified experts."

Thus, goal levels are a means of quantifying broad, overall goals and, like goals, are also timeless aspirations of long-range standards.

Objectives are "quantitative statements of what should be achieved within a specified time period. They should be presented for those goals which have been identified as high priority."

In the development of the statewide health goals and objectives, there were a number of policies and documents which were considered:

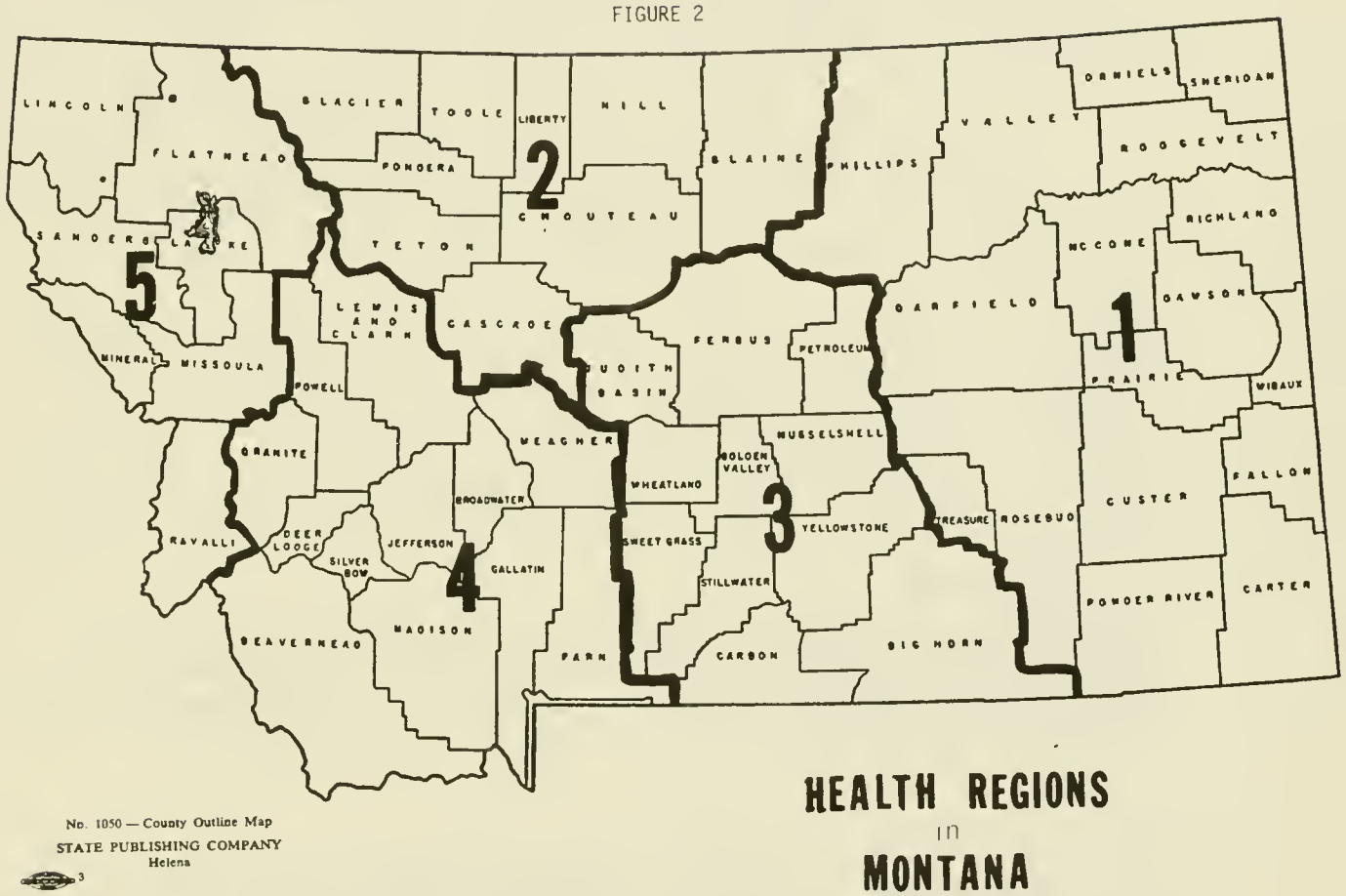
...The health problem analysis

...HSA goals and objectives

...The National Priorities

...The National Health Policy Planning Guidelines

FIGURE 2



3. Recommended Actions:

The next step in the planning process was the selection of long-range recommended actions. According to the Final Guidelines Concerning the Development of State Health Plans, recommended actions are defined as:

> "...a comprehensive collection of proposed changes in health and other community systems necessary to achieve health status and health systems objectives. They describe the broad actions which were selected after consideration of possible alternative means of improving health and health systems performance to desired levels."

The selection of SHP recommended actions serve several important functions:

a. Outline strategies to be employed in shaping statewide health policy and achieving statewide goals.

b. Serve as a management tool for the SHCC/SHPDA and HSA in shaping their work programs and resource allocation decisions.

c. Help facilitate achievement of HSA goals and objectives by promoting legislation and coordination activities necessary to successful areawide planning.

ESTABLISHMENT OF THE STATE HEALTH PLAN

Procedures for approval and establishment of the State Health Plan are largely set forth in PL 93-641. In order to assure widespread review and comment 50 copies of the rough draft of the SHP were distributed prior to the public hearing held April 19, 1979. Distribution of the Plan included professional provider organizations, State and regional agencies, and HSA subarea councils. Notices of the public hearing held in Helena were placed in all major newspapers in the State 30 days prior to the meeting.

Comments received at the public hearing were analyzed. The amended State Health Plan received final approval and was established at the April 19, 1979 meeting of the Statewide Health Coordinating Council.

SHP RELATIONSHIP TO THE SMFP

Public Law 93-641 states that the State Medical Facilities Plan (SMFP) shall be consistent with the State Health Plan. The SMFP has not as yet been developed in Montana.

SPECIAL PROJECTS

During the past several months, the SHPDA has been involved in several special projects which include:

1. Development of a Two Year Work Plan: This work plan depicts the first two years of a long-range effort for integrated planning and evaluation. It further depicts a protocol for the Department of Health and Environmental Sciences to follow for developing and implementing a Public Health Program Evaluation System.

2. Development of Pilot Local Agency Evaluation Method for Public Health Services: During the past six months, several local health departments, the State Department of Health and Environmental Sciences, and the SHPDA have been involved in developing an improved evaluation method for food services. This study will continue at a local health department for two years and will include developing a monitoring and reporting (evaluation) measurement system for food services and other public health service programs.

3. Staff Development and Training: Four training workshops were initiated by the SHPDA. Several health and health-related agencies were invited to attend. They were:

   a. Communications workshop

   b. Planning and Evaluation workshop

   c. Policy Analysis workshop

   d. Basic Data Management

4. Long-Term Care Alternatives: An analysis of appropriate setting for the care of individuals needing both medical and personal living assistance who do not need to be in nursing homes is underway. SHPDA is working jointly with the Department of Social and Rehabilitation Services and the Department of Institutions to reduce Medicaid costs.

5. Subarea Council Education Services: The State Health Plan is not only a Plan to improve the quality of health of Montanans but is also an educational tool. The Plan will be taken to subareas and educational meetings will be held by the SHPDA and the HSA to inform people about specific health problems in their area. This will assist them to set priorities for study and to influence change in promotion of health and prevention of illness.

SUMMARY OF SHP CONTENTS

The remainder of the Plan consists of the following sections:

1. A profile of the State of Montana which briefly describes the demographic and socio-economic characteristics of the State and possible implications for health and the health care system.

2. A section on health status which includes a brief discussion on health, an overview of health status, and, for each priority health status problem, a summary of the problem analysis and the selected goals, objectives, and recommended actions.

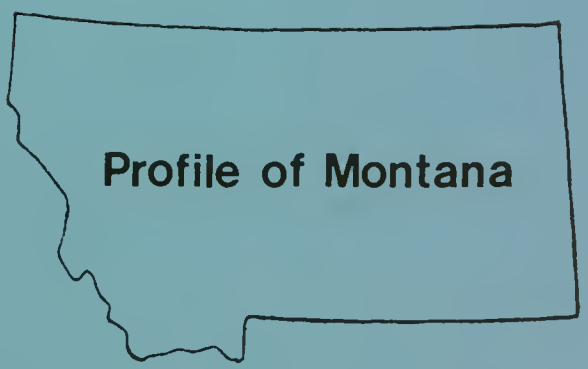
   The intent is to highlight the inescapable fact that major causes of mortality and morbidity in Montana stem from factors primarily related to lifestyle, the environment, and human biology. These findings have significant implications for the development of intervention strategies for improving the health of the residents of the State.

   This section also serves the purpose of indicating differences in the impact of mortality and morbidity on specific population groups.

3. A section on the health systems which contains introductory material on the health systems taxonomy framework, and similar to the health status section a summary analysis, goals, objectives and recommended actions for each of the priority health system areas.

4. An explanation of the way in which the SHP has addressed th National Priorities and National Health Planning Policy Guidelines as required by law.

5. An Appendix which contains supporting items such as footnotes, an Inventory of State Government Programs, and the HSP Executive summary, in addition to others.



Profile of Montana

PROFILE OF MONTANA

Many factors affect both the mental and physical health of a population and the subsequent demands placed on the health care delivery system. Factors usually considered outside the purview of the traditional health system pertain to income, cultural background, environment and education, among others. An understanding of these factors or characteristics is essential in planning for the health needs of particular population groups (population-based planning) and in projecting demand in the health care system. These socio-economic and demographic characteristics are given some consideration throughout this document. However, information needs to be more available, as well as progress in the state-of-the-art, before more emphasis can be placed in population-based planning.

Population-based planning is based on health needs and focuses on minimizing risks to health problems. Most planning has focused on resource-based planning which has grown out of a hospital-dependent health care system. There is an ever-growing recognition that environment and lifestyle play an important part in determining health status. Population-based planning, by targeting programs on the minimization of health risks, is compatible with understanding wellness (health) and illness (disease). As much as possible, population-based planning and analysis will be emphasized in both this section and the following section, Health Status.

This section has been developed to provide an overview of Montana's population characteristics. It is not meant to provide any direct cause/effect linkages but will point out how certain population characteristics may have an effect on the health system. One thing does become clear in this overview; for Montana, change and growth have been the pattern and this will likely continue into the future. Although this makes prediction difficult, it makes planning imperative.

Demographic and Geographic Characteristics of Montana:

Montana is a sparsely populated State located in the Rocky Mountain Region and in 1978 ranked 42nd in population nationally. The 1976 population was estimated at 761,000 residents while the 1980 population projection is 790,000.[1] Since 1970, Montana's total population growth rate has averaged about 1.5 percent per year, compared with the U.S. average of around 1 percent. If Montana is examined with respect to its eastern

plains vis-a-vis the western mountain regions, the eastern region appears to be growing at about the same rate as the Dakotas and Nebraska, while the mountainous regions are enjoying a growth rate similar to Colorado, Western Wyoming, and Southern Idaho.[2] From Figure 1, one can see that the projections correspond with the 1970-1975 Population Projections of the Bureau of the Census. The projected growth rates for Montana and the United States may be found in Table 1. The growth rates are further exemplified in Figure 2 by the shifts in age distribution. For instance, the 0-4 year old age group is predicted to decrease from 12 to 7 percent of the total population from 1950-2000, which probably depicts a decrease in the birth rate. The 5-17 and 65+ year old age groups remain stable during these years while there is an increase in the 18-64 year old age group which might mean an in-migration factor for the State. More information on population projections by age group, county and region may be found in Appendix II. The major findings from these Tables are: Montana's population increased 9.4 percent from 1970-1975; the rate of increase varied considerably by county with some counties experiencing overall decreases in population.

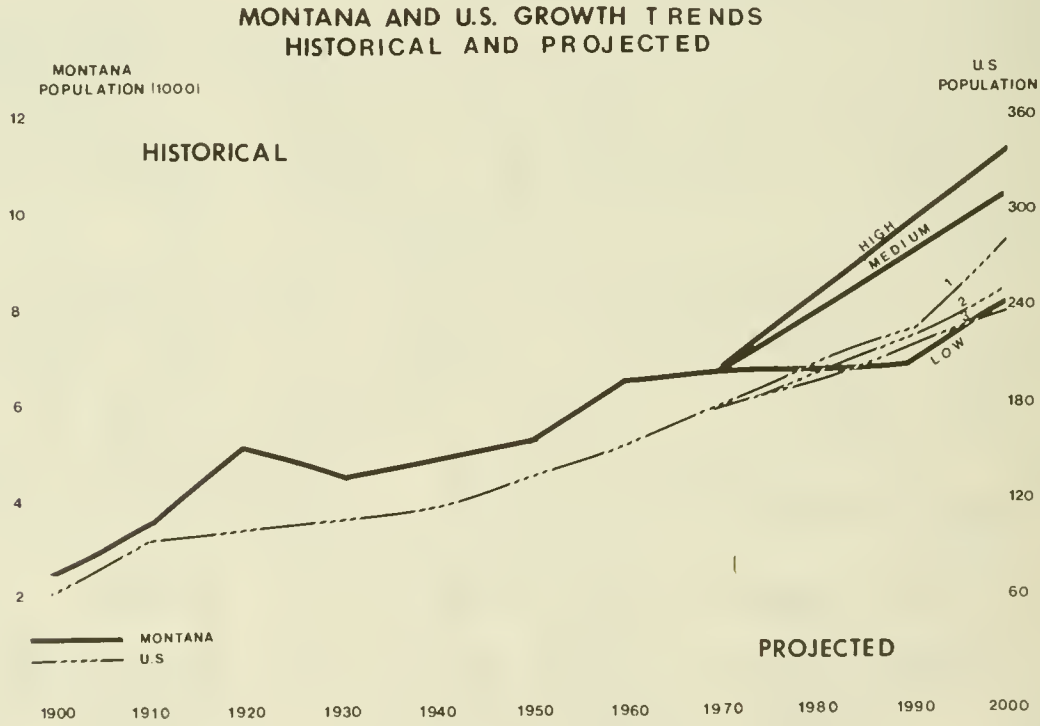
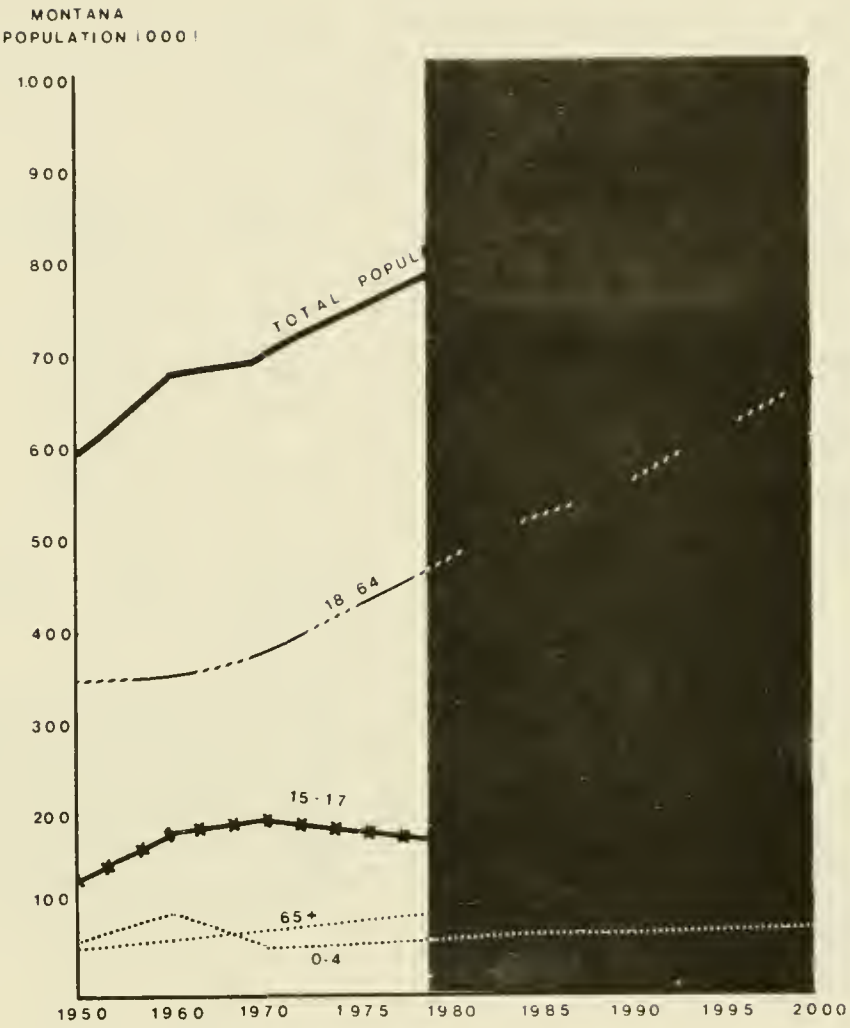


FIGURE 1

FIGURE 2



**MONTANA GROWTH TRENDS
HISTORICAL AND PROJECTED
BY AGE**

The State average for in-migration during the period 1960-1970 was 58,153 or 8.6 percent.[3] The increase was basically noted into/around major Montana cities. It is expected that the percentage of those classified living in rural areas has decreased from 47 percent (1970).

TABLE 1

PROJECTED GROWTH RATES

MONTANA AND THE U.S.

Decade	Montana Series			U.S. Series		
	High	Medium	Low	I	II	III
1970-1980	20.6%	13.3%	2.8%	10.3%	9.3%	8.6%
1980-1990	18.4%	16.7%	7.8%	13.7%	9.6%	7.0%
1990-2000	16.4%	16.4%	7.1%	11.0%	6.9%	4.0%

Source: Montana Department of Community Affairs, Montana Population Projections 1975-2000, August, 1977.

The male/female ratio has shifted from an excess of males in 1960 to slightly more females in 1970. Montana has reflected the same general trend as the nation, but not to as great an extent, with only .9 percent differentiation between the male/female ratio. The median age of females increased from 27.1 years in 1960 to 27.6 years in 1970, while the median age of males decreased from 28.0 years in 1960 to 26.6 years in 1970 which is probably indicative of less out-migration of males looking for employment.

The largest minority group in Montana is the Native American. Statistics on the numbers and basic characteristics of the Indian population are available from many sources. However, much controversy reigns over the accuracy of these estimates. For the purpose of the Plan, data is used from the Bureau of Indian Affairs and Urban Indian Alliances. The Bureau of Indian Affairs estimates its service population on and adjacent to reservations while the Urban Indian Alliances document, through files or surveys, estimates of the Urban Indian population in seven service areas of Montana. Because of their relatively high birth and death rates, the greatest percentage (44%) of the Indian population is under the age of fourteen and only 4.8% of the Indian population is over the age of sixty-five. Conversely, the age distribution of the white population in Montana shows only 29% in the 0-14 age category and 10% in the over sixty-five category.

TABLE 2
POPULATION ESTIMATES BY AGE, RACE, AND SEX
MONTANA 1978

RACE/SEX	AGE COHORT						
	All Ages	Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65 +
Total	785,000						
White	746,202	59,696	N/A	N/A	N/A	N/A	74,620
Indian	38,798	5,309	12,765	7,313	7,757	4,511	1,645
* Reservation Indian	30,097	4,004	9,394	5,569	6,018	3,640	1,472
**Urban Indian	8,701	1,305	2,871	1,739	1,739	871	173
Helena	1,057	159	349	211	211	106	21
Butte	400	60	132	80	80	40	8
Billings	2,500	375	825	500	500	250	50
Anaconda	515	77	170	103	103	52	10
Great Falls	2,255	338	744	451	451	226	45
Missoula	974	146	321	194	194	97	19
Havre	1,000	150	330	200	200	100	20

SOURCE: Department of Commerce, Bureau of Census Projections, July, 1978.

SOURCE: Billings Area Indian Health Service, Program Planning and Statistics Bureau, Indian Population By Service Unit and Age Group, 1978.

SOURCE: Indian Alliances reports from stated cities.

NOTE: Measurement error recognized due to lack of uniform data.

* Measurement error possible due to in- and out-migration from reservation to urban area.

** Age cohort percentages used:

Under 5	15%	25 - 44	20%
5 - 14	33%	45 - 64	10%
15 - 24	20%	65 +	2%

A distinguishing characteristic of Montana is evidenced by its size (ranking fourth in the nation) and by the diversity contained within the State of both its people and the natural environment. Montana covers 147,138 square miles with distances averaging 550 miles in length to 275 miles in width. The topography varies from mountain crests, characteristic of the western third of the State, to the elevated plains, low mountains, and erosion valleys in the central portion, to the flat terrain in Eastern Montana as displayed in Figure 3. Most of the State is rural with only two of the State's cities, Billings located in Yellowstone County and Great Falls located in Cascade County, qualifying as "Standard Metropolitan Statistical Areas".

Figure 3

MONTANA

Age characteristics correspond closely with the United States in each region of the State. Health service demands have therefore grown relatively even across the State and a variety of health and social programs have been designed to meet the needs, especially for children and the elderly. However, factors which have enabled other population groups to translate their wants into demand are: rising disposable personal income, widespread health insurance coverage, and expanding government subsidies.

Social and Economic Characteristics of Montana:

1. Marital Status:

The Montana marriage rate has closely followed the national rate since 1972 as can be seen in Figure 4. The marriage rate during 1977 was 9.9 per thousand estimated population. Montana's marriage rate has shown a moderate increase since 1972. The rate of divorce in the State has shown a much more significant increase over this period. In fact, 1977 was the first year in a 13-year span in which the number of marital terminations has not increased. Divorce, or marital dissolution, is a very real social and economic problem in Montana. As Figure 5 depicts, the State has been above the national rate since 1945. The dissolution rate for 1977 was 6.3 per thousand population in Montana while the national divorce rate for the same period was 5.1. Trend analyses, as indicated in Table 3 is that both the marriage rate and divorce rate will remain rather stable in the State.

The remarriage of divorced persons continues to account for an increasing proportion of total marriages. The proportion of marriages involving divorced women increased from 26.6 percent in 1976 to 27.7 percent in 1977, and from 26.8 percent in 1976 to 28.2 percent in 1977 for men.

The median age at marriage for both bride and groom increased in 1977--a continuing trend that began in the early 1970's. The median age for all brides and grooms is 22.2 and 24.7 years respectively.

FIGURE 4

MARRIAGE RATES: MONTANA & U.S., 1944-77

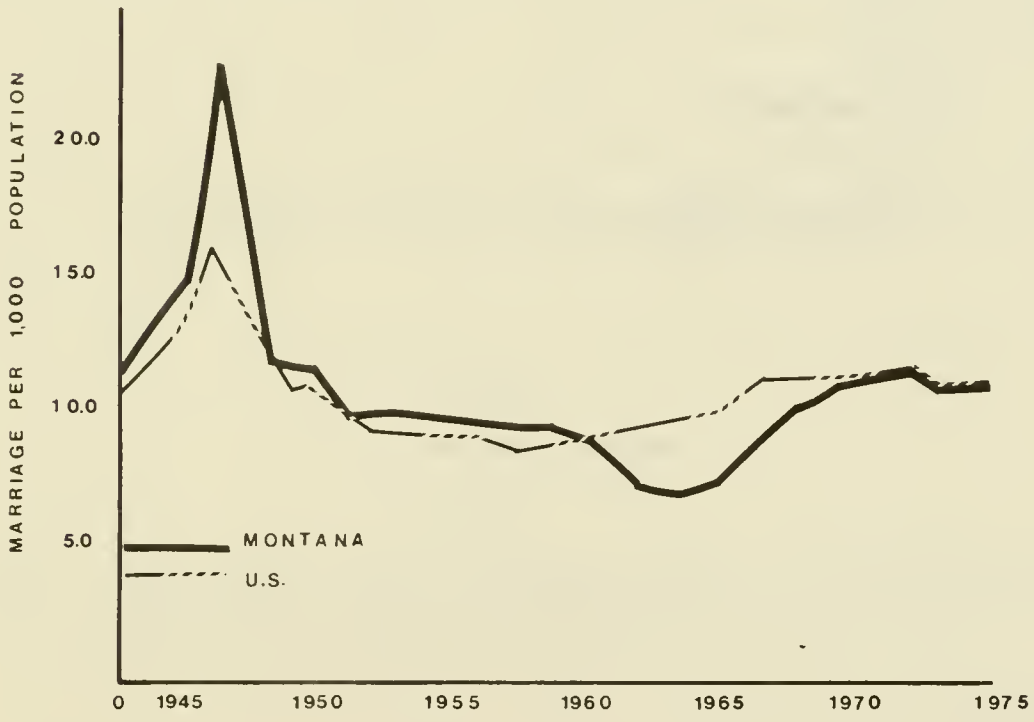


FIGURE 5

DIVORCE RATES: MONTANA & U.S., 1944-77

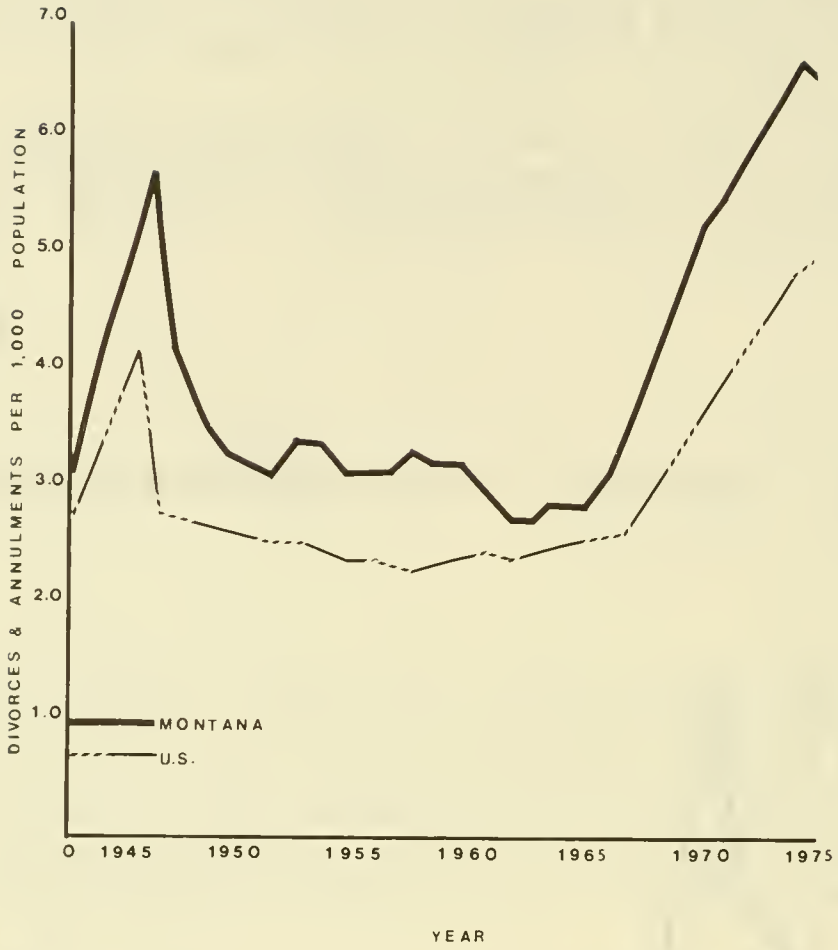


TABLE 3

MONTANA MARRIAGE AND DIVORCE RATES

1950 - 1977

Rates	1950	1960	1970	1971	1972	1973	1974	1975	1976	1977
Marriage Rate Per 1,000 Population	12.2	8.7	10.0	10.0	10.7	10.8	10.5	9.8	9.8	9.9
Divorce Rate Per 1,000 Population	3.3	3.0	4.4	4.7	5.0	5.2	5.4	5.7	6.4	6.3
Divorce Rate Per 100 Marriages	26.96	34.04	44.09	47.22	47.02	48.66	50.89	58.46	65.62	63.77

SOURCE: SDHES, Bureau of Records and Statistics, Vital Statistics, 1977.

2. Education:

The 1970 U.S. Census data on education achievement levels for Montana's population 25 years of age or older, show that the white median number of school years completed was 12.2 while that of the U.S. was 12.1. The median number of school years completed by the non-white population in the State 25 years of age or older was 11.9 while that of the U.S. was 9.6.

Montana's public elementary and secondary schools (kindergarten through Grade 12) has a total enrollment of 164,326 students in 1978-79. Of this number 2,348 students are enrolled in the ungraded special education program. Current data regarding enrollment of private elementary and secondary schools is unavailable at present as the result of the recent defeat of House Bill 525 to amend Section 20-S-102 of the Montana Codes Annotated (M.C.A.). This bill was an act to require non-public schools to register the official name of the school and also the name of the principal. Failure of the passage of this bill has prevented the State of Montana from having a current listing of all schools in Montana and a complete enrollment figure of those students attending elementary and secondary schools.

The 1978-79 enrollment of students in Montana's junior colleges is 2,651 students while the total enrollment for the State University System is 25,100. In addition, 3,136 students are enrolled in private colleges. The ratio of first time resident students to high school graduates is 59%; this does not include those students going to out-of-state schools.

Information is not available for the number of students enrolled in Vocational Technical schools.

3. Housing:

In Montana, there were 246,603 occupied housing units in 1970. Because tne State does not have a building permit law for counties, projections for housing units to accommodate Montana's growing population are not available.

4. Income:

In 1976, the total personal income for Montana residents was $4,284 billion. The per capita income in the State was $5,691 representing a 38 percent increase since 1970. Montana's per capita personal income ranks 34th in the nation.[4] The per capita income shows the heaviest concentration of higher income levels in the North Central region

along the hi-line. There are more families in Eastern Montana who have incomes below the poverty level even though the per capita personal income is above the State average in the region.

Another significant income measure is the percentage of personal income remaining after Federal, State and local taxes which is a bulk measurement of market potential. In 1977, Montana ranked 41st among the 50 states and the District of Columbia.

In 1970, 10.4 percent of all Montana families had incomes below the poverty level. Nationally the figure was 10.7 percent.[5]

5. Public Assistance and Social Programs:

The Department of Social and Rehabilitation Services (SRS) administers several public assistance programs. Tables 4 and 5 provide a breakdown of the number of recipients for each program and the average payments to recipients for selected months in 1977 and 1978.

TABLE 4

PUBLIC ASSISTANCE PROGRAMS

MONTANA, AUGUST 1977 and 1978

Program	Total Recipients August, 1978	Total Recipients August, 1977
Aid to Dependent Children:[1]		
Families	6,124	5,975
Children	12,275	12,182
Eligible Adults . . .	5,164	5,094
ADC Unemployed Parent:		
Families	205	173
Children	496	429
Eligible Adults . . .	376	321
Medical Assistance. . . .	17,758	18,112
Food Stamp Families . . .	8,131	8,743
Food Stamp Recipients . .	22,873	25,263
General Assistance. . . .	562	570
Day Care	1,477	1,582
ADC Foster Care	337	389
Regular Foster Care . . .	495	480

Source: Montana Department of Social and Rehabilitation Services, Bureau of Statistics and Research, Statistical Report, August, 1978.

TABLE 5

PUBLIC ASSISTANCE AVERAGE PAYMENTS TO RECIPIENTS

MONTANA, AUGUST 1977 and 1978

Program	August, 1978	August, 1977
Aid to Dependent Children:[1]		
Per Family	198.68	175.67
Per Person	69.77	60.76
ADC Unemployed Parent:		
Per Family	292.54	258.35
Per Person	68.77	59.59
Medical Assistance	266.36	215.96
Food Stamp Per Family	122.75	118.79
Food Stamp Per Person	43.64	41.11
General Assistance	58.54	60.42
Day Care	58.67	55.19
ADC Foster Care	210.66	209.09
Regular Foster Care	219.69	218.86

[1]Includes ADC Unemployed Parent

Source: Montana Department of Social and Rehabilitation Services, Bureau of Statistics and Research, Statistical Report, August, 1978.

The general trend of recipients receiving public assistance is declining. This might be attributed to the decrease in the rate of unemployment. The number of Aid to Dependent Children family recipients is declining at a slow rate from 7,000 in 1974 to the present level. The food stamp program is declining at approximately 50 families per month.

Two other major social service programs which provide a more direct access to health care are the Medicare and Medicaid programs. In August, 1978, Montana had a total of 17,675 medical assistance cases with an expenditure of $4,729,957 or an average of $268 per case.[6] During the quarter July-September, there were 51,000 Medicaid recipients at a projected cost of $12.5 million. One factor

influencing the Medicaid costs is the number of persons in institutions. Although many of these persons require the 24-hour medical care provided in nursing homes, there are possibly 20 percent of those institutionalized who could utilize alternatives to long-term care. The Medicaid program has been placed under a severe cost strain to keep up with the demand for long-term care. This leads to the possibility of limited access to some elderly as operators of nursing homes might defer to clients most capable of paying costs.

Although Montana ranks high among the states for Federal grants to state and local governments, expenditures for public assistance programs are below the national average. For example, the U.S. average payment for General Assistance is $123.01 while the average payment in Montana is $42.86. This is also true in the ADC program with the U.S. average family payment being $253.28 while Montana's average payment is $185.15.[7]

Montana is having difficulty in satisfying public service demands. There are few easy answers to these complex issues when taking into account the State's sparse population, large geographical area, ruralness, and lack of goods-producing industry. Perhaps some of these problems could be alleviated if there were more alternatives to long-term care, less duplication and over-lap of services, and more prevention and promotion of health programs.

6. Economic Activity:

Table 6 lists labor and proprietors' income in Montana by major industrial groupings. Services and wholesale and retail trade are the State's largest industries. Although Montana is considered a resource state, it is apparent that much income is service-oriented and this trend is expected to continue.

TABLE 6

PERSONAL INCOME BY MAJOR SOURCES

MONTANA, 1971-1976

(000 of Dollars)

Industry	1971	1972	1973	1974	1975	1976
Farm	231,672	369,021	601,619	417,554	397,789	297,172
Non-Farm	1,701,921	1,916,739	2,169,829	2,393,050	2,615,176	2,869.860
Private	1,269,928	1,438,844	1,641,095	1,802,250	1,939,643	2,185,392
Agriculture, Forestry, Fisheries	7,618	9,111	11,457	11,037	8,511	8,962
Mining	50,265	69,202	81,125	114,214	115,913	115,309
Construction	141,215	169,188	189,844	203,122	209,655	236,482
Manufacturing	211,899	230,465	252,877	278,572	289,548	329,838
Transportation and Public Utilities	184,088	210,251	238,594	263,752	281,755	320,202
Wholesale Trade	93,950	105,790	121,186	144,667	183,688	202,709
Retail Trade	247,876	273,647	319,886	338,430	348,513	398,716
Finance, Insurance Real Estate	77,900	86,274	92,965	95,912	105,748	123,124
Services	255,117	284,916	333,161	352,544	396,272	450,050
Government (Federal, State, Local)	431,993	477,895	528,734	590,800	675,533	684,468

Source: Department of Community Affairs, Bureau of Economic Analysis, July, 1978

7. Employment:

Montana's peak unemployment rate during the past eight years was 8.1 percent in January, 1977 to an estimated 6.0 percent in 1978. As in the case with U.S. employment rates, the State shows teenagers and Indians to have significantly higher rates of unemployment.

Classification of industries for analytical use is divided into two sections: goods-producing and service-producing. Goods-producing, as the name implies, deals in producing goods for consumption and includes the major industry divisions of agriculture, mining, manufacturing, and contract construction. Service-producing industries include: wholesale and retail trade, services, government, transportation and public utilities, and finance, insurance and real estate.

Since Montana is perceived to be a highly rural state, it is erroneously assumed that the state is highly agrarian. Although agriculture remains Montana's largest export industry, employment opportunities exist in this industry through replacement needs rather than by expansion. Farm workers is the only major occupational group expected to decrease by 1985.

During 1974, white-collar workers - professional, technical, managers, officials, proprietors, clerical, and salesworkers - outnumbered blue collar workers - craftsmen, foremen, operations, and laborers - by 42,000 jobs. This gap is expected to increase to nearly 60,000 workers by 1985.

Among the most prominent of the State's occupations is services. This amounts to approximately 28 percent of the State's total work force. Wholesale and retail workers account for approximately 23 percent of the work force in Montana. Agriculture, forestry, and fisheries account for approximately 13 percent of employment (industry expansion during the period will be attributed to forestry and fisheries rather than to agriculture) while 9 percent is engaged in manufacturing. These four major industries account for approximately 73% of the State's employment rate during 1974.

8. Montana's Veteran Population:

Montana ranks 42nd in total veteran population in the United States. There are approximately 107,000 veterans in the State. The majority of this population group are between the ages of 55 and 65 years of age.

Information received from the Fort Harrison Veterans Hospital indicates that the veteran population is growing. Between 1970-1979, the population increased from 7 to 8 percent of the total population. There are two veteran hospitals in Montana located in Helena and Miles City which provide medical care services. Veterans are sent to the VA Hospital in Sheridan, Wyoming for psychiatric services as these services are not provided in the two Montana facilities and at this time are probably not needed.

Conclusions:

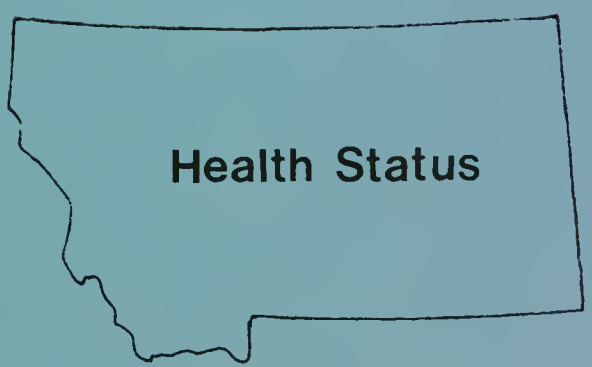
Montana has several serious social problems which ultimately affect the health and mental health of the State's citizens. One of these problems is the very high divorce rate which involved 14,389 persons (children, husbands, and wives) in

1977. Many times there is a direct linkage between divorce and other social problems which might include alcoholism and mental illness, in addition to the drain on public services. Making inroads to begin alleviating this problem could be dependent on family teaching centers, available courses in high school conducive to good marriages, third-party payments for counselling, mandatory pre-marriage counselling, and research of the many issues which "cause" divorce in Montana.

One of the most significant socio-economic and demographic characteristics of Montana is its population growth of an estimated 90,000 since 1970, or a 13 percent increase. This has placed strains on the environment and on the abilities of city, county, and State government to cope with its increase. In the past, growth rates were used to justify more hospitals and/or more acute care beds. This is not a fact in Montana as the occupancy rates in 1978 were approximately 58 percent. Thus, new hospitals are not envisioned and only a few additional beds are needed in high growth areas - particularly Billings (South Central Region) and Kalispell (Northwestern Region). Even though there is little need for increase of hospital beds, there is prime concern, particularly in the Eastern Region, for sufficient access to health care services including primary health care in those areas of need.

It is also important to note the age composition in Montana. The 18-64 year age group is increasing while the 0-4, 5-17, and 65+ year age groups are slowly declining. Prevention and promotion of health, or wellness, is providing challenges to the health and social system which could meet the needs of this escalating age group.

Thus, adjusting to the changing age composition and mitigating the effects of population growth upon the natural environment will be two major problems facing Montanans. The outcome will be dependent not only on the vision of planners, but on the foresight and dedication of the political and governmental systems in carrying out those plans.


Health Status

HEALTH STATUS

INTRODUCTION

Society has tended to define health in terms of its negative associations - disease and illness - since the time of Hippocrates centuries ago. Problems of health have, as a consequence, been viewed as physical and/or mental conditions requiring medical intervention. Vaccines have all but eliminated some infectious diseases and have been superseded by chronic conditions - still we have continued to seek solutions through medical intervention. By and large, the chronic conditions have proven resistant to these efforts, despite ever-increasing investments in medical research and technology.

Today there is a growing realization that the definition of health, rooted solely in its negative implications, is inadequate. There is a growing interest in defining health in positive terms; to define health in positive terms of wellness; to define what health is as opposed to what it is not; to seek solutions which aim at the promotion of health, not merely eliminating illness.

A conceptual model widely used in Canada was developed by Marc Lalonde. This Health Field Concept model classifies divergent factors affecting human health. The health field has been divided into four broad elements: Human Biology, Environment, Lifestyle, and Health Care Organization.

Human Biology - includes all those aspects of health, both physical and mental, which are developed within the human body as a consequence of the basic biology of man and the organic makeup of the individual. This element includes the genetic inheritance of the individual, the processes of maturation and aging, and the many complex internal systems in the body, such as skeletal, nervous, muscular, cardiovascular, endocrine, digestive, and so on.

Environment - includes all those matters related to health which are external to the human body and over which the individual has little or no control.

Lifestyle - consists of the aggregation of decisions by individuals which affect their health and over which they more or less have control.

Health Care Organization - consists of the quantity, quality, arrangement, nature, and relationships of people and resources in the provision of health care. It includes medical practice, nursing, hospitals, nursing homes, medical drugs, public and private health care services, ambulances, dental treatment and other health services such as optometry, chiropractics and podiatry.

The Health Field Concept provides a simple framework for describing, analyzing and reporting health status problems. For these reasons it has been adopted for use throughout the discussion of some of Montana's health status problems, more of which will be in the annual update of the next State Health Plan. This type of health status analysis suggests that solutions to Montana's health problems must be sought not only through medical intervention but through social reform, environmental action, health system monitoring, and individual lifestyle decisions.

In addition to the Health Field Concept, population-based analysis will be introduced through Quartile Maps developed by the Bureau of Records and Statistics. The maps indicate County health rankings of health status problems. These population-based health status indicators are based on objective data and depict problems unique or common to each Montana County. In an attempt to minimize the problem of small numbers for counties with small populations, data was collected for the five-year period, 1973-1977.

The specific health status problems to be analyzed in the State Health Plan are:

...Infant Mortality

...Accidents

...Suicide

...Alcoholism

These problems were introduced in the Preliminary State Health Plan, Phase I, and will be expanded in this Plan. For each problem area, there will be a summary analysis and the related statewide goals, objectives and recommended actions.

It is deemed appropriate to provide a broad overview of the health status of Montana's population before turning to the detailed analyses of the identified health status problems. The health status overview which follows suffers the traditional weakness in that most of the data currently available continues to be related to medical conditions and negative health (i.e., illness and death) measures. What information

does exist concerning the social and behavioral aspects of health (both positive and negative) pertains mostly to the nation as a whole. At present, we can only infer what health-related perceptions and practices exist among the various elements of the State's population as well as the social conditions which promote or inhibit such health-related phenomena. We hope that time and effort will bring about changes in this situation allowing us to more adequately plan for and promote the health and well-being of Montana's citizens.

OVERVIEW OF HEALTH STATUS

MORTALITY INDICATORS

Mortality statistics are relatively complete and accurate since death certificates must be filed in Montana before a permit for burial or removal can be issued. Thus, mortality data is quite useful in developing an overall assessment of the health status of Montana's population. It is possible to utilize mortality information to meaningfully compare the health status of various sectors of the population such as males/females, race, and specific age categories. It is also possible to analyze time trends. Because mortality reporting is highly reliable throughout the United States, it is possible to compare the health status of Montanans with that of residents in other states and with the nation as a whole.

Two commonly employed indices will be subsequently discussed; they are:

1. Death rates, and
2. Leading causes of death.

While these indices are interrelated, each offers unique insights into the past and prevailing patterns of mortality.

Death Rate Data:

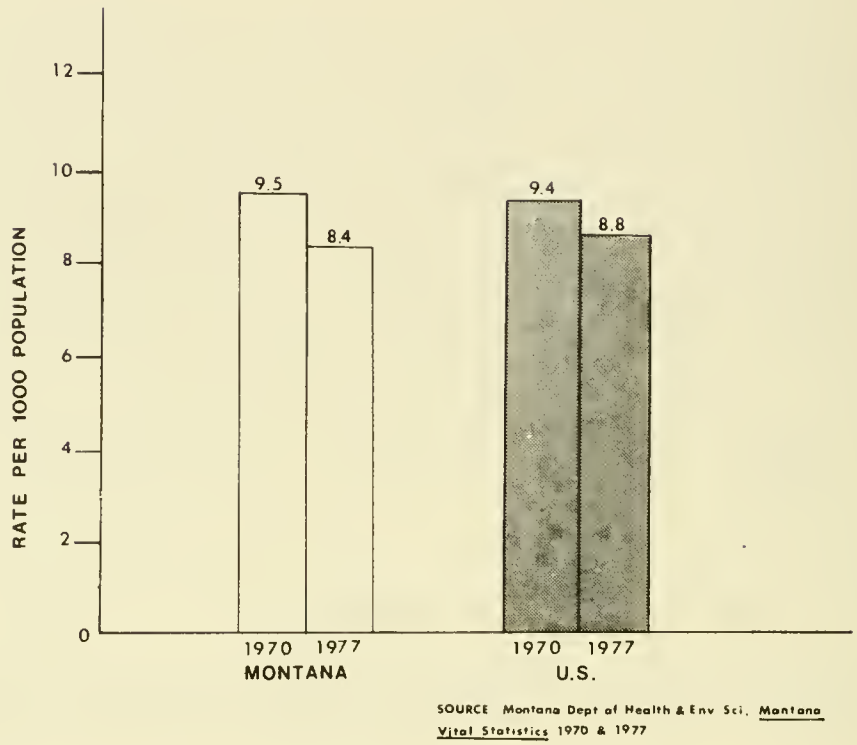
The simplest mortality measure to compute is the crude death rate of a population. This measure consists of the number of deaths (for a given year) divided by the population (in thousands). That is:

$$\text{Crude Death Rate} = \frac{\text{No. of deaths}}{\text{Population}} \times 1{,}000$$

It can be seen from Figure 1 that the crude death rate among Montana residents has declined significantly in seven years. In 1977, the crude death rate of 8.4 deaths per thousand estimated population is the lowest death rate ever recorded in the State and is slightly lower than that of the United States as a whole.

Figure 1

CRUDE DEATH RATES PER 1,000 POPULATION
MONTANA AND U.S.
1970-1977



SOURCE Montana Dept of Health & Env Sci. Montana Vital Statistics 1970 & 1977

One last indicator which should be examined before moving on to other mortality measures is the age specific death rate. It can be seen from Table 1 that the 15-24 year of age groups actual deaths increased significantly from 1970 to 1977, and the 65+ age groups actual deaths increased slightly. The actual deaths declined in the other five age groups cited. Interestingly, the greatest decline was experienced in the 45-64 years of age group.

Table 1

AGE SPECIFIC ACTUAL DEATHS

Montana: 1970 and 1977

Age Group	1977	1970	Difference
Under 1 year	183	272	(-89)
1-4 years	41	46	(- 5)
5-14 years	72	72	(0)
15-24 years	259	195	(+64)
25-44 years	350	381	(-31)
45-64 years	1,323	1,514	(-191)
65 + years	4,168	4,115	(+53)

SOURCE: Montana Vital Statistics, 1970 - 1977
State Health Planning & Development Agency Interpretation

It is worth mentioning that the life expectancy at birth for the U.S. population in 1976 was 72.8 years, a record high. The gap in life expectancy between males and females has increased to 69.7 and 77.3 respectively.

Cause of Death Data:

Along with the dramatic drop in the overall death rates over the past years, the ranking of the conditions causing death has changed enormously. The infectious and parasitic diseases which killed vast numbers of people 50 years ago are no longer among the leading causes of death. By 1975, two-thirds of the deaths in the United States were due to diseases of the heart, malignant neoplasms, and cerebrovascular disease.

The last of these three is primarily a cause of death among older people. However, both diseases of the heart and malignant neoplasms are among the leading cause of death at every age, and they are not as easy to eliminate as the infectious and parasitic diseases which formerly ravaged the population.

The leading causes of death in Montana and the United States are shown on Table 2.

Table 2

LEADING CAUSES OF DEATH

Rate Per 100,000

Cause of Death	Montana 1977	Montana 1976	U.S. 1976
Heart Disease	282.4	289.2	337.2
Cancer	155.6	158.2	175.8
Cerebrovascular Disease	75.7	84.6	87.9
All Accidents	75.4	76.9	46.9
Influenza and Pneumonia	20.1	40.1	28.8
Arteriosclerosis	18.9	21.6	13.7
Suicide	18.8	17.1	12.5
Bronchitis, Emphysema, Asthma	15.4	15.9	17.0
Cirrhosis of the Liver	13.1	15.8	14.7
Diabetes Mellitus	11.7	14.3	16.1

SOURCE: Montana Vital Statistics, 1976-1977
Department of Health & Environmental Sciences,
Bureau of Records and Statistics.

SOURCE: U.S. Department of Health, Education & Welfare,
Public Health Service, Facts of Life and Death,
November, 1978.

Life Years Lost:

A somewhat different perspective on the relationship between specific causes of death and overall health status is obtained by estimating the aggregate years of life lost by cause as shown in Table 3. When this is done, the impact of accidents, suicide, and cirrhosis of the liver becomes more evident (Table 4). The emerging importance of these causes is tied to the fact that they are more likely among younger persons than are the other leading causes of death. For example, while the "major killers", heart disease, cancer, and cerebrovascular disease, account for 61 percent of Montana's deaths per 100,000 population, these three causes result in only 11.91 average number of life years lost. On the other hand, while "violent causes", suicide and accidents, make up only 11.2 percent of Montana's deaths per 100,000 population, these causes constitute 36.65 average number of life years lost.

TABLE 3

NUMBER OF DEATHS AND LIFE YEARS LOST
11 LEADING CAUSES OF DEATH
MONTANA, 1977
(By Place of Residence)

Cause	Number of Deaths	Years of Life Lost	Average No. Life Yrs. Lost	Percent of Total
Heart Disease	2,149	24,556.84	11.43	33.6
Cancer	1,184	18,039.31	15.24	18.5
Cerebrovascular Disease	576	5,227.34	9.08	9.0
Total Accidents	574	23,219.57	40.45	8.9
Motor Vehicle	304	13,877.26	45.65	4.8
Other Accidents	270	9,342.31	34.60	4.2
Influenza and Pneumonia	153	1,843.15	12.05	2.4
Arteriosclerosis	143	816.56	5.71	2.2
Suicide	143	4,697.51	32.85	2.2
Bronchitis, Emphysema, Asthma	117	1,436.35	12.28	1.8
Cirrhosis of Liver	100	2,185.40	21.85	1.6
Diabetes Mellitus	89	1,030.40	11.58	1.4
Certain Perinatal Deaths	88	6,209.28	70.56	1.3
All Other	1,080	20,989.78	19.43	16.9
TOTAL	6,396	110,351.49	17.25	100.0

SOURCE: Dept. of Health & Environmental Sciences, Bureau of Records and Statistics

TABLE 4

COMPARATIVE RANK ORDER OF CAUSE OF DEATH
BY RATE AND YEARS OF LIFE LOST
MONTANA, 1977

Cause	Rank	
	By Rate	By Average No. Life Yrs. Lost
Heart Disease	1	9
Cancer	2	5
Cerebrovascular Disease	3	10
Accidents	4	2
Influenza and Pneumonia	5	7
Arteriosclerosis	6	11
Suicide	7	3
Bronchitis, Enphysema, Asthma	8	6
Cirrhosis of Liver	9	4
Diabetes Mellitus	10	8
Certain Perinatal Deaths	11	1

SOURCE: Department of Health and Environmental Sciences, Bureau of Records and Statistics.

In closing this discussion of mortality-related health status indicators, it must be noted that despite the overall trend of declining death rates, certain causes of death are increasing in rate among specified age groups (Table 5). Those age-specific causes showing an increase in rate are, for the most part, strongly tied to social conditions, especially lifestyle and environment. Particularly alarming are:

1. The dramatic increase in suicide rates in the age groups 15-24 and 25-44.

2. The increase in accident rates (some of which could be suicide) in the age groups 5-14 and 15-24.

3. The rise in death rates from cancer among those 25 years of age and older.

Table 5

LEADING CAUSES OF DEATH SHOWING INCREASED DEATHS
BY AGE CATEGORY
Montana: 1970 - 1977

Age Group	Cause of Death	Actual Numbers 1977	1970	Difference
5-14 years	Accidents	48	36	12
15-24 years	Accidents	182	136	46
	Suicide	32	13	19
	Homicide	13	7	6
25-44 years	Cancer	52	46	6
	Suicide	40	23	17
	Cirrhosis of Liver	21	19	2
45-64 years	Cancer	372	351	21
65 + years	Cancer	738	632	106

SOURCE: Montana Department of Health & Environmental Sciences,
Bureau of Records & Statistics,
Montana Vital Statistics, 1970 and 1977
State Health Planning & Development Agency Interpretation

MORBIDITY AND DISABILITY DATA

Morbidity and disability data are usually reported either in terms of incidence or prevalence. The incidence of disease, infection, or condition refers to the number of cases having their onset during a prescribed time period. On the other hand, the prevalence of a morbidity or disability condition refers to the number of cases present or currently existing at a particular point in time.

Generally speaking, morbidity and disability data have rather limited utility. Not all types of morbidity and disability conditions are required to be reported. Furthermore, those conditions that are legally required to be reported are often

reported incorrectly or not reported at all. Thus, apparent increases or declines in the annual incidence of a condition may merely be a reflection of changes in the completeness of reporting. Likewise, differences in rates from county to county (or state to state) may also be reporting artifacts.

More reliable are the morbidity and disability data collected via the National Health Surveys. Unfortunately, this data generally does not provide county by county or state by state comparisons. As well, such surveys are not conducted on an annual basis, limiting the data in terms of analyzing time trends or determining current circumstances. Finally, the data from the National Health Surveys are seldom published in a form which allows adjustments to be made for local characteristics. Specifically, the data in these surveys are not typically reported by standard age categories. Despite these limitations, the National Health Survey does provide the best and, often, the only information available concerning many health problems.

The following discussion is divided into three sub-sections:

1. Communicable and Infectious Diseases;

2. Chronic Conditions; and

3. Disability.

Although the data relevant to each of these sub-sections suffer from a variety of constraints, cautious interpretation of the data allow for a more detailed understanding of the general health status patterns revealed by mortality statistics.

Communicable and Infectious Diseases:

Infectious disease is caused by a pathogenic organism entering the body, while a communicable disease is transmitted from one person to another or from an animal to a human. In the past, these diseases were a major cause of illness and death. Through the introduction of vaccines and by means of other public health measures, many of these diseases have been reduced to very low incidence levels. Indicative of this trend are the incidence of childhood diseases such as rubella (German measles), whooping cough, and measles which in the past caused considerable morbidity, disability, and mortality.

TABLE 1

SELECTED COMMUNICABLE DISEASES

REPORTED CASES
MONTANA, 1967 - 1978

Disease	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967
Measles (Rubeola)	88	1081	565	51	284	496	18	924	111	122	56	340
Mumps	140	13	27	44	164	314	276	455	827	766	631	-
Rubella (German Measles)	22	15	236	246	27	529	36	126	344	107	97	200

Source: DHES, Preventive Health Services Bureau, Annual Report of Communicable, 1978

As Table 1 indicates, the reported Montana cases fluctuate year by year but are considered to be low. This is probably due to Montana's effective Preventive Health Services Bureau's immunization program. A death has not been reported from mumps or rubella for several years and a death from measles hasn't been reported since 1971.

Tuberculosis has shown a decline in incidence. From 1967 to 1975 the overall incidence rate among Montanans fell from 12.41 to 11.63 per 100,000 population. Available data indicate that U.S. rates are higher than Montana rates with rates in 1967 of 23.07 and in 1975 of 15.74 per 100,000 population. In 1978, the incidence rate again declined to 7.34 per 100,000 in Montana.

In contrast to declines in the reported incidence of childhood diseases and tuberculosis, there has been a relatively stable number of infectious hepatitis cases reported. In 1968, 282 cases were reported while 196 cases were reported in 1978. The Preventive Diseases Bureau reports that there is possibly a deficiency in reporting of cases rather than a true decline.[1]

The incidence of venereal disease appears more hopeful. Although 14 cases of primary and secondary syphilis were reported in 1976, an increase from the average of 6.2 cases a year since 1967, the number of new cases of gonorrhea has stabilized after several years of increases. This is the same as the national trend; thus there is little reason to believe that a number of cases were unreported.[2] However, while the reported incidence of syphilis among Montanans has declined, the reported incidence of gonorrhea has risen from 82.88 to 190.5 per 100,000 population (Table 2).

TABLE 2

COMPARATIVE U.S. AND MONTANA
SYPHILIS AND GONORRHEA RATES

PER 100,000 POPULATION 1967 - 1975

		Syphilis	Gonorrhea
1967	U.S.	52.53	207.33
	Montana	1.43	82.88
1975	U.S.	37.70	469.19
	Montana	1.07	290.5

Source: SDH&ES, Bureau of Preventive Health Services, Annual Report of Communicable Diseases, 1976.
U.S., DHEW, Public Health Service, Health United States 1976-1977, p.249.

In both 1967 and 1975 the Montana rates were lower than the U.S. rates for syphilis and gonorrhea. It appears that the aggressive contact tracing by the Bureau of Preventive Diseases field staff, local public health personnel, and private physicians are probably responsible for the stabilization of the number of gonorrhea cases. The rates per 100,000 population for the years 1976, 1977, and 1978 were 268.39, 183.44, and 269.11[3] respectively, all of which were lower than 1975.

Chronic Conditions:

Chronic disease is defined by the American Public Health Association as including:

> ...all impairments or deviations which have one or more of the following characteristics: are presumably permanent; leave residual disability; are caused by a nonreversible pathologic alteration; require special measures for the patient's rehabilitation; may be expected to require a long period of supervision, observation or care.[1]

Chronic diseases affect people of all ages but are more prevalent in each successively older age group. As indicated by the mortality statistics previously reviewed, chronic conditicns pose a major threat to health status, especially to those 60 years and over.

Inasmuch as chronic diseases are not required to be reported, their incidence and prevalence must be determined through national surveys or estimations based on available medical records. The former method is by far the most commonly employed and is the primary source used here.

Table 3 presents national survey data on the prevalence of a number of chronic conditions. It can be readily seen that while prevalence rates are strongly related to age, they also vary considerably according to gender.

Of the above chronic conditions, hypertension (high blood pressure) is particularly problematic. Only 10 to 20 percent of the estimated 23 million hypertensive individuals in the U.S. are receiving effective treatments; and fully half are not aware that their blood pressure is higher than normal.[2] Since high blood pressure increases the risk of developing heart disease, the leading cause of death in the U.S. and Montana, and since effective management of the problem is possible, locating people with high blood pressure and helping them obtain treatment should receive high priority.

TABLE 3

PERCENT DISTRIBUTION OF PERSONS WITH LIMITATION OF ACTIVITY BY SELECTED CHRONIC CONDITIONS, ACCORDING TO SEX AND AGE

United States 1974

Selected Chronic Conditions	Sex	All Ages	Under 45 Years	45 - 64 Years	65 Years And Older
Heart Conditions	Both	16.2	4.8	19.9	23.5
	Male	18.0	5.1	24.2	25.2
	Female	14.5	4.5	15.6	22.2
Arthritis and Rheumatism	Both	15.0	4.1	17.4	23.2
	Male	10.1	2.8	12.5	15.6
	Female	19.6	5.5	22.4	29.4
Back or Spine Impairments	Both	7.0	10.4	7.3	3.2
	Male	6.8	9.2	7.5	3.1
	Female	7.2	11.7	7.1	3.3
Hypertension (without heart involvement)	Both	6.7	2.5	8.8	8.7
	Male	4.5	1.6	5.9	6.0
	Female	8.9	3.4	11.8	10.9
Visual Impairments	Both	5.9	4.1	4.0	9.8
	Male	5.9	5.4	4.1	8.6
	Female	5.9	2.8	3.8	10.7
Mental and Nervous Conditions	Both	5.1	6.2	5.8	3.4
	Male	4.8	5.9	5.2	3.0
	Female	5.5	6.5	6.3	3.8
Diabetes	Both	4.9	2.1	5.8	6.8
	Male	4.4	2.0	5.4	5.7
	Female	5.5	2.3	6.2	7.7
Asthma	Both	4.9	9.8	3.0	2.1
	Male	5.2	9.8	3.0	2.8
	Female	4.6	9.8	3.0	1.6
Emphysema	Both	2.8	0.5	3.5	4.4
	Male	4.5	*	5.1	7.9
	Female	1.2	*	1.8	1.6
Hearing Impairments	Both	2.4	3.3	1.7	2.3
	Male	2.8	4.1	1.8	2.5
	Female	2.0	2.4	1.6	2.1

SOURCE: United States Department of Health, Education and Welfare, Public Health Service, Vital and Health Statistics, Series 10 - Number 111, Limitation of Activity Due to Chronic Conditions, U.S., 1974, p. 18.

People may be unaware that they have high blood pressure. There are no distinctive physical or psychological symptoms to alert the individual to seek medical care. As a result, the blood pressure may be at a level high enough to cause serious damage before the individual is aware of the problem.

Arthritis probably represents the most important public health problem of the diseases of inflammation; it is widespread, serious, and poorly understood. Arthritic disease affects 20 million Americans of all ages. Arthritis is the second leading cause of illness for all age groups, disabling a total of nearly 3.5 million persons.[3] The most prevalent and crippling form of arthritis is rheumatoid arthritis which affects 4 to 5 million Americans. This disease affects approximately three times as many females as it does males, usually beginning in the fourth or fifth decade of life, and appears equally prevalent in all climates and among all races.

Cancer prevalence rates are not provided by the National Health Survey. However, in 1975, more than one million persons were under medical care for cancer, nationwide. According to the National Cancer Institute, about one out of every four persons now living in the United States will contract cancer at sometime during his life unless new preventive measures are taken. The American Cancer Society (Billings) estimates that in 1978, 2,300 Montanans contracted cancer. In Table 4, this estimate is broken down by type of cancer. The type of cancer contracted varies somewhat by gender. The leading cancer site for males is the lung, while the leading site among women is the breast.

Before leaving the topic of chronic conditions, some mention must be made of alcoholism. Alcoholism is strongly associated not only with the leading causes of death such as cirrhosis of the liver, accidents, and (perhaps to a lesser degree) homicide and suicide, but also is involved in much personal, family, and social disruption. For instance, in the U.S. some $19 billion in lost work time is attributed to alcoholism each year. In Montana, the estimated economic loss in 1977 was $169,600,000.[4]

Nationally, it is estimated that 7.1 percent of the population over age 20 are alcoholics. Here in Montana, the proportion is significantly higher. According to estimates of the Montana Alcohol and Drug Division, Department of Institutions, 86,563 Montanans constituting 8.5 percent of the white population and 70 percent of young adult and adult Indian population are alcohol abusers.[5] More information on this problem is in the Suicide and Alcoholism Health Status Analysis section of this Plan.

TABLE 4

ESTIMATED CANCER INCIDENCE BY TYPE AND SEX
United States 1977

Type of Cancer	Percentage of Cases
Skin	
Male	2
Female	2
Oral	
Male	5
Female	2
Lung	
Male	22
Female	8
Colon - Rectum	
Male	14
Female	15
Pancreas	
Male	3
Female	3
Urinary	
Male	10
Female	4
Leukemia	
Male	8
Female	7
Prostate	17
Breast	27
Uterus (Invasive)	27
Ovary	4
All Other	
Male	19
Female	15

Source: Eden, Ms., American Cancer Society, Billings, Phone message.

Disability:

Disability may be defined as any limitation of personal, physical, mental, or social activity relative to the capacities of other individuals of similar age, sex, and occupation. Disabilities may entail personal discomfort, loss of work productivity, and partial or total institutionalization. Costs to the individual and society may be slight if only discomfort or a few days of work loss are involved. On the other hand, complete loss of the ability to work and/or institutionalization may be devastating to the individual and his family and extremely costly to society. The chief causes of disability are injuries, chronic conditions, and developmental handicaps.

Before discussing some of the causes of disability, it would be well to obtain a grasp of the overall magnitude of the problem. According to the National Health Survey, when the number of restricted-activity days during 1971 is distributed by geographic region, the highest rate is found in the West, a rate of 17.6 days per person as may be noted in Table 5.

1. Disability Due to Chronic Conditions:

Table 5 illustrates the proportionate impact of leading chronic conditions on activity limitation. It can be seen that heart conditions are the leading cause of activity limitation due to chronic conditions, both in terms of percentage of all degrees of limitation and percentage of inability to carry out major activity.

There has been little change over time in the ranking of heart conditions and arthritis and rheumatism which are the leading causes of disability. However, there is some change in the ranking of the third leading cause. Mental and nervous conditions are no longer a leading cause in the 1974 data, having been superseded by hypertension without heart involvement. This is probably due to the active role Community Mental Health Centers have played over the past decade.

2. Disability Related to Work-Related Injuries:

On-the-job injuries result in a substantial amount of disability. According to the Montana Bureau of Workers' Compensation, there was a 27.66 percent increase in the number of reported on-the-job injuries from 1968 to 1978. (Table 6)

TABLE 5

DAYS OF DISABILITY PER PERSON PER YEAR
BY GEOGRAPHIC REGION, TYPE OF DISABILITY, AND SEX
United States 1971

Type of Disability and Sex	Days of Disability Per Person Per Year Geographic Region			
	Northeast	North Central	South	West
Restricted Activity				
Both Sexes	14.8	14.2	16.6	17.6
Male	13.4	13.3	15.1	15.6
Female	16.1	15.1	18.1	19.5
Bed Disability				
Both Sexes	6.1	5.3	6.8	6.3
Male	5.4	4.5	6.3	5.2
Female	6.7	6.0	7.4	7.3
Work Loss [1]				
Both Sexes	5.2	4.8	5.5	4.8
Male	4.8	5.0	5.2	4.4
Female	5.9	4.5	6.0	5.5
School Loss [2]				
Both Sexes	6.7	5.0	4.8	6.2
Male	5.9	4.7	4.7	6.0
Female	7.4	5.3	4.9	6.4

[1] Currently employed person 17 years and over.

[2] Persons 6 - 16 years.

SOURCE: United States Department of Health, Education and Welfare, Public Health Service, Vital and Health Statistics, Disability Days, U.S., 1971.

The steady increase of disability related to work-related injuries is significant in depicting the growth and development of Montana. Employment estimates during 1974 numbered 299,500 workers, while forecast employment in 1985 numbers 342,300 workers - an increase of fourteen percent.[6] On the other hand, the rate is conducive to the type of industry in Montana such as mining, forestry, construction, and farming.

TABLE 6

LEADING CAUSES OF ACTIVITY LIMITATION
DUE TO SPECIFIC CHRONIC CONDITIONS BY PERCENT

United States 1974

Chronic Condition	All Degrees Of Limitation	Unable To Carry Out Major Activity
Heart Conditions	16.2	24.10
Arthritis & Rheumatism	15.0	15.8
Visual Impairment	5.9	8.1
Mental & Nervous Conditions	5.1	7.6
Diabetes	4.9	6.9
Hypertension w/out Heart Involvement	6.7	6.6
Emphysema	2.8	6.3
Impairments of Lower Extremities & Hips	6.4	5.4
Impairments of Back or Spine	7.0	4.2
Asthma	4.9	2.5

SOURCE: United States Department of Health, Education and Welfare, Public Health Service, National Health Survey, Limitation of Activity Due to Chronic Conditions, U.S. 1974.

TABLE 7

REPORTED DISABILITY DUE TO WORK-RELATED INJURIES

Montana 1968-1978

	Cases Reported						Percent Chan
	1968	1970	1972	1974	1976	1978	1968 to 197
Total	23,195	21,986	23,821	27,120	31,734	32,060	27.66
Disabling	6,661	5,832	6,927	7,875	9,760	9,668	31.10
Non-Disabling	15,826	14,872	15,938	18,312	15,271	16,965	6.71
Nondetermined	708	1,282	956	933	N/A	N/A	- -
Fatal	N/A	N/A	N/A	N/A	46	50	- -

SOURCE: Montana Department of Labor and Industry, Annual Report, 1978

3. Developmental Disabilities:

Developmental disabilities refers to certain substantial handicapping conditions. These include mental retardation. cerebral palsy, epilepsy, and autism. The Montana Developmental Disabilities Planning and Advisory Council of the Department of Social and Rehabilitation Services estimates that in 1979, there are approximately 9,323 developmentally disabled in the State in all categories. They regard this figure as only an estimate and more reliable, up-dated figures will be available in the future.

Within all categories, the greatest number of developmentally disabled are the mentally retarded. Mental retardation is generally defined as "subnormal general intellectual functioning which originates during the developmental period and is associated with impairment of either learning and social adjustments or maturation, or both."[7] The mentally retarded individual develops at a consistently below-average rate and experiences difficulty in learning, social adjustment, and person and economic productivity.

Many of the mentally retarded are able to attend school (special education) and can receive special training which allows them to live a satisfying and productive life in the community. Even the more severely and profoundly retarded can learn to care for their basic needs. Current State estimates indicate that there are approximately 6,007 mentally retarded. Only 305 are residents of the State institution, Boulder River School and Hospital. In April, 1975, there were 625 residents.[8] This indicates the movement toward deinstitutionalization of these clients, and program needs in this area are related to community-based programs.

Cerebral palsy is a non-progressive disability, characterized by nerve-muscle dysfunctions. It is a medical condition, sometimes revealed by only a slight awkwardness of gait, but more often accompanied by other handicaps such as seizures, inability to see, hear, speak, or learn as other people do. It is caused by damage to the part of the brain which controls and coordinates muscular action and can occur before birth or during infancy and early childhood. The health of the mother, certain virus infections in early pregnancy, or a premature birth can contribute to cerebral palsy. In early infancy and childhood, lead poisoning is an increasing cause of cerebral damage. There are approximately 468 Montanans who are affected by cerebral palsy, an estimated 390 who are affected by cerebral palsy and epilepsy.[9]

Epilepsy is a disorder of the nervous system. It is characterized by seizures which cause convulsions of the body's muscles, partial or total loss of consciousness, mental confusion or disturbances of bodily functions which are usually controlled automatically by the brain and nervous system. With medication, most persons who have epilepsy can control their seizures. It is estimated that approximately 546 Montanans have epilepsy, another 1,092 have epilepsy and mental retardation, and 312 individuals have the combination of epilepsy, mental retardation, and cerebral palsy.[10]

POINT OF INTERVENTION--LIFESTYLE

INTRODUCTION

In 1920, C.E.A. Winslow, former professor of public health at Yale University, defined "public health" as follows:

> "Public health is the science and the art of preventing disease, prolonging life, and promoting physical and mental health and efficiency through organized community efforts..."

The same definition can be used for prevention, whether carried out by public health officials, private practitioners, or by individuals themselves.

This Plan proposes to focus on a major initiative in prevention, concentrating on individual actions--or lifestyle--that affect the health of the people in Montana. The term "lifestyle" has become popular in describing the set of common individual behaviors that influence health. Marc Lalonde, while serving as Minister of National Health and Welfare in Canada, drew up a list of lifestyle habits which can prove destructive to an individual's health: improper diet, lack of exercise, substance abuse (alcohol, cigarettes, and other drugs), and careless driving.

Dr. William E. Connor, Professor of Internal Medicine, University of Iowa, also stresses the health potential in preventive medicine. He indicated at the National Nutritional Policy hearing in Washington, D.C., in June, 1974, that a few simple changes in the American diet and habits of life could greatly reduce the number of people who acquire, and may die from:

...Coronary heart disease
...Hypertension (high blood pressure)
...Liver disease
...Cancer

Hypertension, one of the major health problems in the United States and Montana, is a prime example of the effects of lifestyle on health. Obesity, physical inactivity, stress and tension are all factors responsible for the high incidence of this asymptomatic disease that occurs in all socioeconomic groups. Current estimates are that hypertension afflicts 24 million, or 11 percent of Americans aged 20 and over. Extrapolated to Montana,

this means there are an estimated 86,900 individuals in the State who are hypertensive. High blood pressure, moreover, afflicts not only the elderly, but also young and middle-aged adults--individuals in the prime of life, in the most productive years. Figure 1 shows the prevalence rates by race and age based on physical examinations in 1971-1974.

A striking example of the effects of lifestyles is described by Victor Fuchs in his discussion of possible reasons why the mortality rates in Utah are so much lower than those in neighboring Nevada:

> "The two states are very much alike with respect to income, schooling, degree of urbanization, climate, and many other variables that are frequently thought to be the cause of variations of mortality...What then explains these huge differences in death rates? The answer most surely lies in the different lifestyles of the residents of the two states. Utah is inhabited primarily by Mormons, whose influence is strong throughout the state. Devout Mormons do not use tobacco or alcohol and in general lead stable, quiet lives. Nevada, on the other hand, is a state with high rates of cigarette and alcohol consumption and very high indexes of marital and geographical instability. The contrast with Utah in these respects is striking."

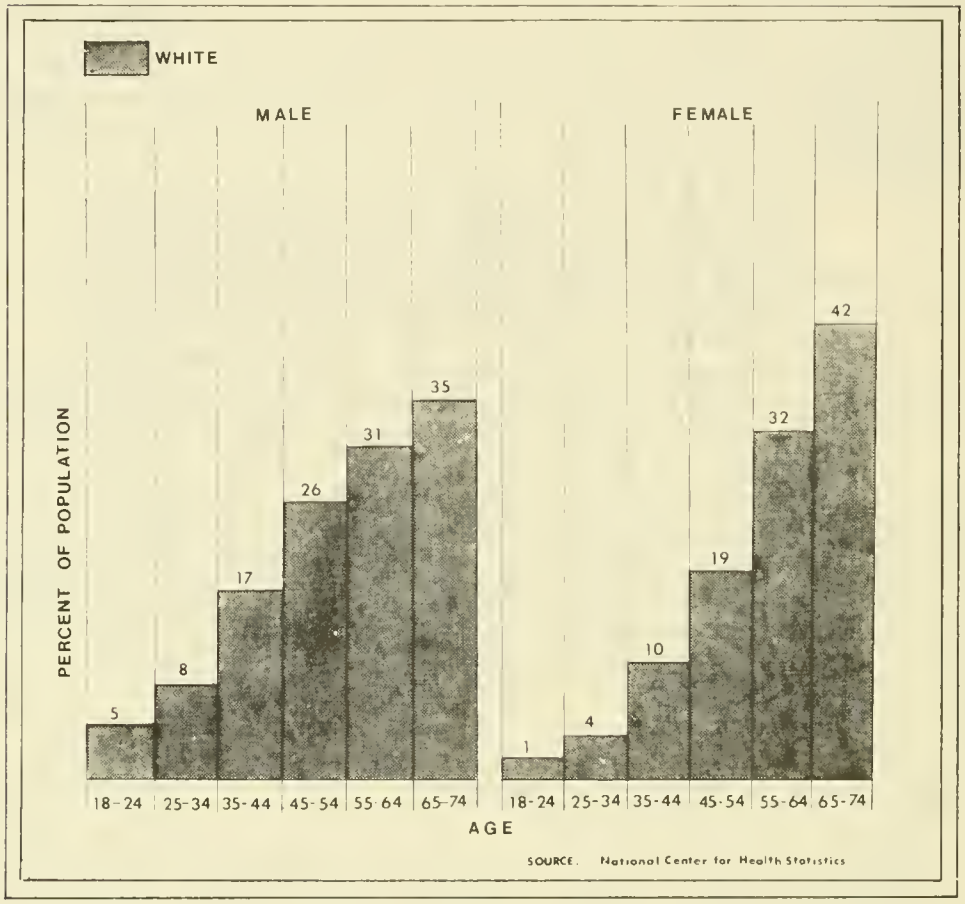
The above review of literature is to point out a renewed interest in prevention. Although the concept of prevention received much verbal support in the past, little activity in this area of health promotion developed. With the realization that primary prevention and health education take only approximately 4 percent of our $110 billion health care expenditures, it is obvious that most of the activity is in "lip service" and little activity in developing and implementing broad-range comprehensive programs for prevention.

As previously noted, a great deal of dissatisfaction has been expressed in recent years with limitations inherent to mortality, morbidity, and disability data as indices of health. Therefore, some broader indicators of well-being have been included in the health status overview. The measures presented here were chosen to reflect the prevalence of attitudinal and lifestyle characteristics generally believed to predispose the individual to a state of wellness or illness. The data presented are

drawn entirely from National Health Surveys. At the present time, this data is not available on the health perceptions and practices of Montanans.

Figure 1

HYPERTENSION BY AGE, SEX, AND RACE - 1971-1974



Health Perceptions

According to the data presented in Table 1, the vast majority of Americans believe themselves to be in good or excellent health. There are only slight differences in the self-assessed health status of men and women. However, rather large differences exist in the self-perceived health of persons by income level. While over 90 percent of those persons earning $15,000 or more annually feel themselves to be in good or excellent health, only about 73 percent of those earning less than $5,000 feel their health is at least good. Age differences

are also apparent. The persons perceiving their health as excellent decline in each successive age group, while the percent viewing their health as only fair to poor increases with age.

TABLE 1

SELF-ASSESSMENT OF HEALTH ACCORDING TO AGE, SEX, AND INCOME
United States, 1975

Characteristics By Age, Sex, and Income	Level of Health			
	Excellent	Good	Fair	Poor
All Ages	48.6	38.4	9.7	2.8
Male	51.7	36.5	8.5	2.8
Female	45.7	40.1	10.8	2.8
Under 15 Years	59.9	35.3	3.7	0.4
15-44 Years	52.5	38.2	7.3	1.4
45-64 Years	35.9	41.5	16.1	5.9
65 Years and Over	28.6	40.3	21.5	8.6
Family Income				
Less than $5,000	31.9	41.7	17.9	7.8
$5,000 - $9,999	40.9	42.8	12.3	3.4
$10,000 - $14,999	51.9	38.1	8.0	1.5
$15,000 or more	60.3	33.3	5.0	1.0

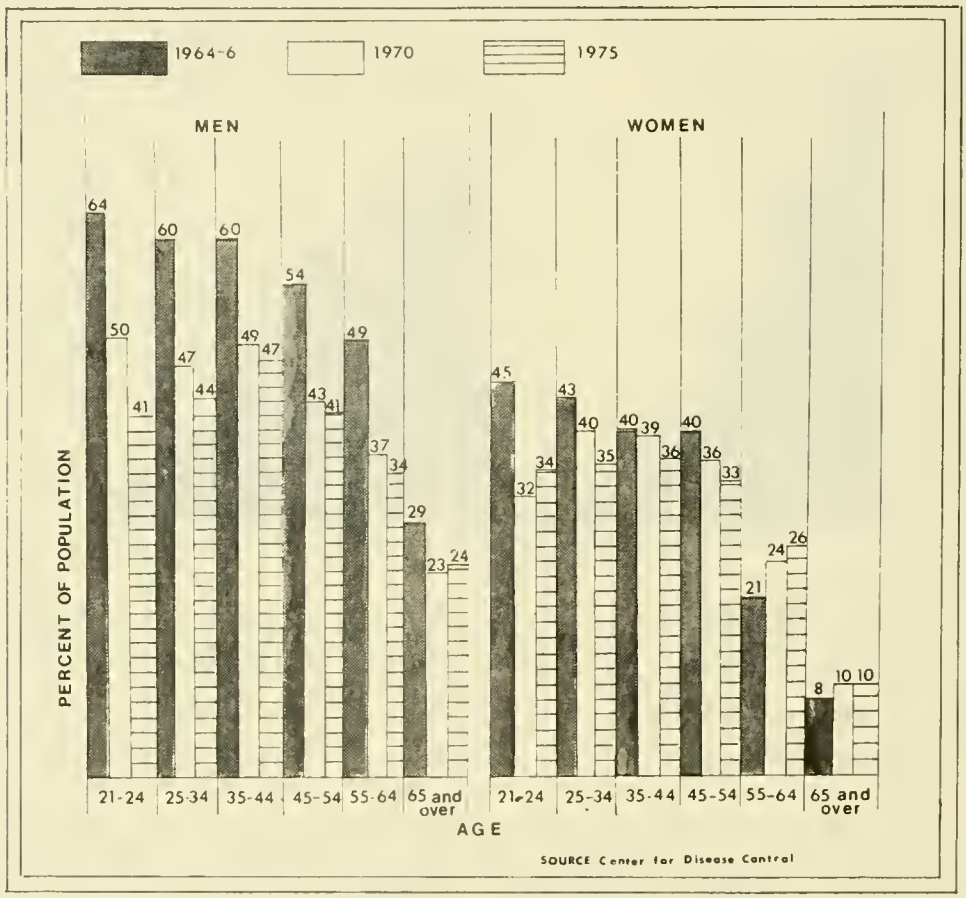
Source: U.S. Department of Health, Education, and Welfare, Division of Health Interview Statistics, National Center for Health Statistics

Smoking and Alcohol

Two practices which are generally acknowledged as having negative health implications are cigarette smoking and excessive alcohol consumption. As Figure 2 shows, the practice of smoking is generally declining among adults. While more males than females smoke, there has been a greater percentage decline in smoking among males than among females over the past ten years.

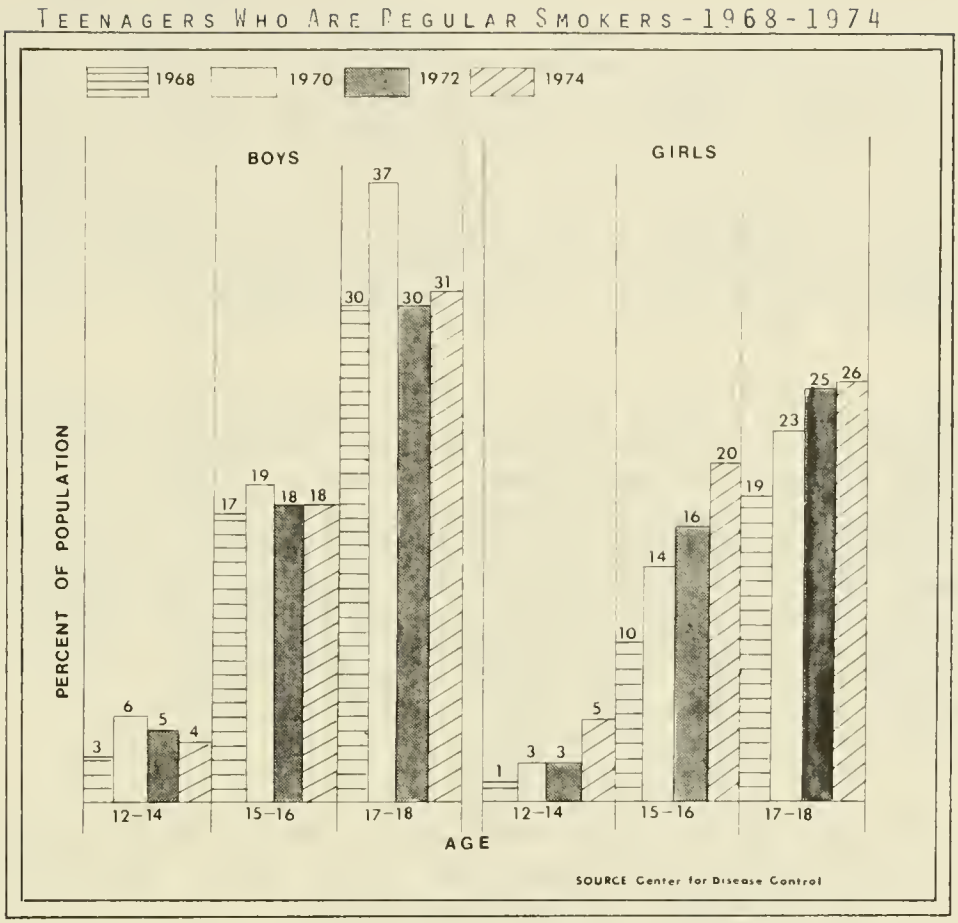
Figure 2

ADULTS WHO ARE CURRENT SMOKERS
1964-6, 1970, AND 1975



A portion of the decline in cigarette smoking is attributable to declines in the percent smoking in the younger adult age groups (21-24 and 25-34 years old). This would seem to indicate that the trend of decline in the prevalence of smokers will continue into the future. Figure 3 presents data on the percentage of smokers among the 12-18 years of age population. This data indicates an upward trend in smoking, especially among females.

Figure 3



In general, smokers and former smokers tend to have more disability and long-term illness than persons who have never smoked. However, recent evidence indicates that the health status of former smokers improves with the duration of smoking cessation. There is no question that cigarette smoking, which can be controlled by the individual, decreases longevity. At every age and for both sexes, death rates are higher for people who smoke or who have smoked in the past than for people who have never smoked.

Cigarette smoking is one of the factors affecting several diseases among which are lung cancer, arteriosclerosis (hardening of the arteries), emphysema, and heart disease.

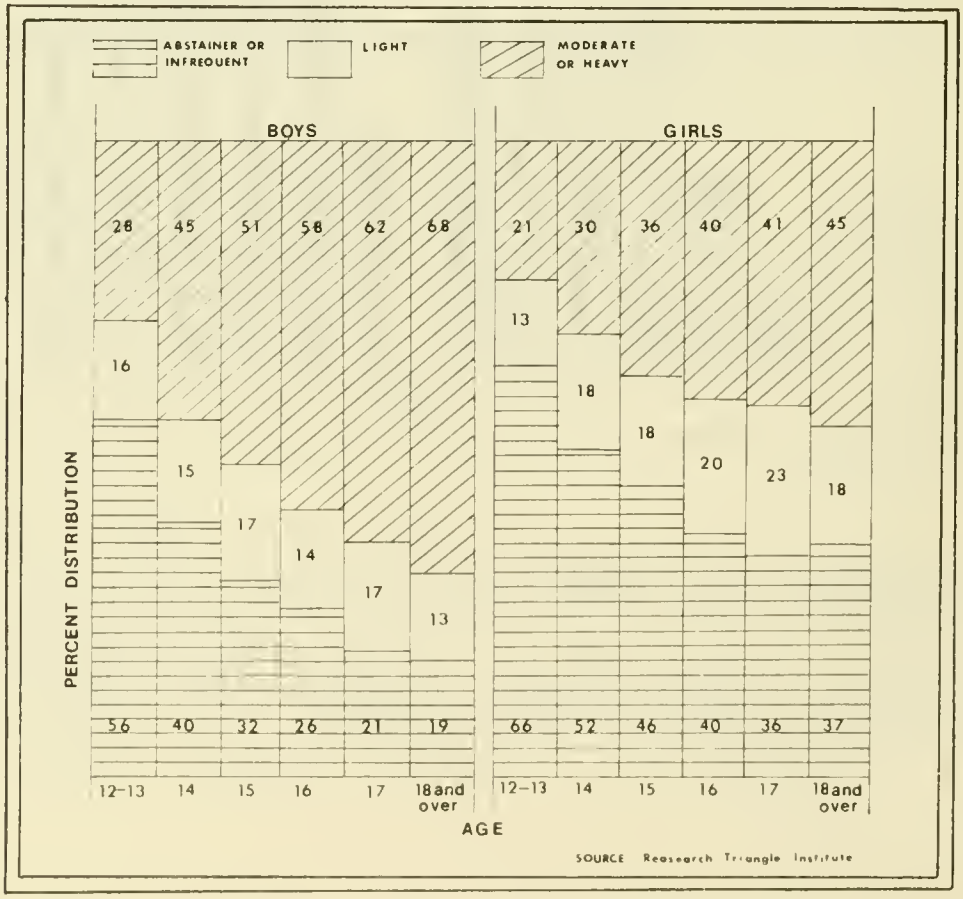
In 1977, 267 Montanans died from lung cancer, or 22 percent of all cancer deaths. Arteriosclerosis, alone, claimed the lives of 144 individuals. One action of

nicotine is to constrict the small to medium-sized arteries, causing further decrease of blood supply to the heart muscle. There is increasing evidence that nicotine enhances the deposit of fatty material, chiefly cholesterol, within the inner walls of the arteries. Thus, smoking may also be a factor in ischemic heart disease of which 1,691 Montanans died, or 55.6 percent of all circulatory system deaths. Ninety-eight Montanans died of emphysema, or 23.5 percent of all respiratory system deaths. Severe cases of emphysema are most often found in relatively heavy cigarette smokers.

Data on drinking levels and problem drinking are more difficult to obtain than data on smoking. The majority of people in the United States and Montana, in particular, drink alcohol at some time. Recently, a national survey of students grades 7 through 12 examined teenage drinking and problem drinking. Seventy-four percent of the teenagers were drinkers--79 percent of the boys and 70 percent of the girls. (See Figure 4.) Drinking among college students has been rising steadily since 1936. Today's collegians drink more frequently and become intoxicated more often than today's high school students.

Figure 4

DRINKING AMONG HIGH SCHOOL STUDENTS-1974


ABSTAINER OR INFREQUENT
LIGHT
MODERATE OR HEAVY
BOYS
GIRLS
PERCENT DISTRIBUTION
28 45 51 58 62 68
16 15 17 14 17 13
56 40 32 26 21 19
21 30 36 40 41 45
13 18 18 20 23 18
66 52 46 40 36 37
12-13 14 15 16 17 18 and over
AGE
SOURCE Research Triangle Institute

Researchers have concluded that six major factors influence high school drinking: peer, familial and parental, socio-cultural, environmental, personality and behavioral. Peer and parental influences are considered the most critical because of the high correspondence between the drinking practices of adolescents and those of their parents and peers.

Alcohol education programs have been addressed in the Suicide and Alcoholism section of this Plan. Alcohol education is considered important in preventing alcohol-related problems.

Nutrition and Diet

Obesity: Overweight is a personal characteristic thought to be associated with premature death and a contributing factor to disease and related problems which, without the overweight, might have remained latent. There is no question that obesity is due to a disparity between caloric intake and the expenditure of calories by physical activity.

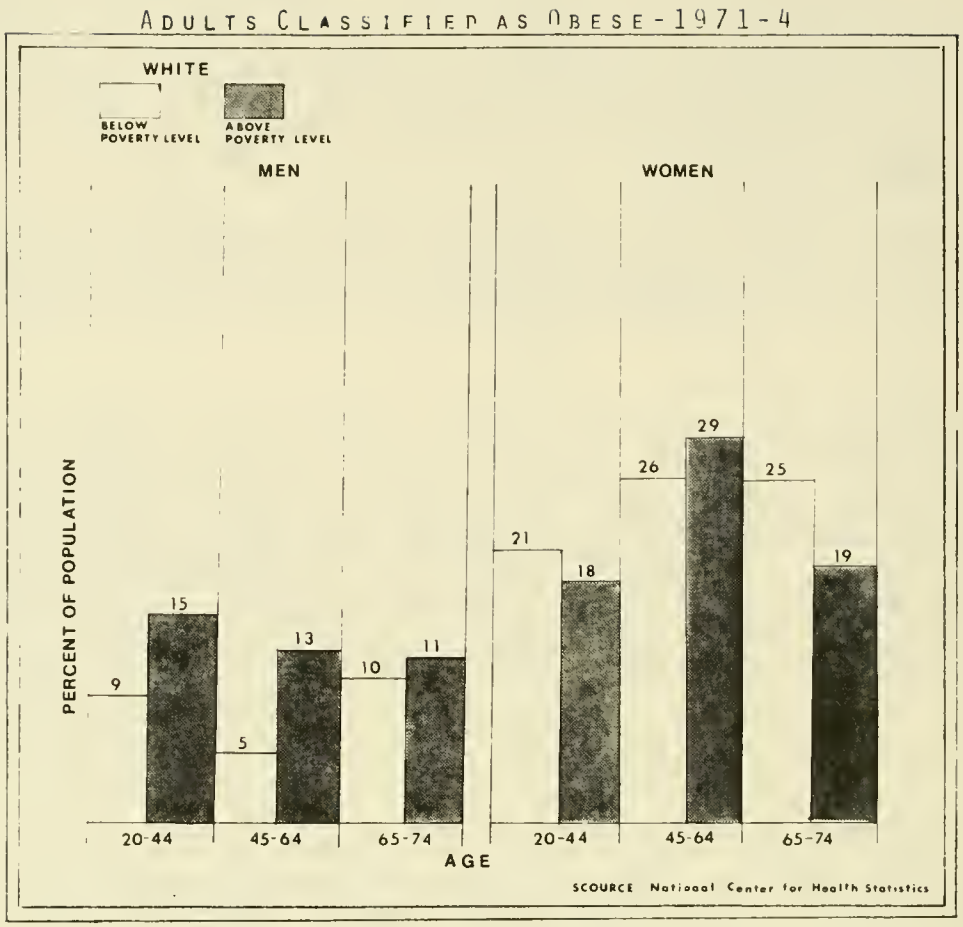
When a sample of the population was examined during the period 1971 through 1974, a higher proportion of women than men was found to be obese, as shown in Figure 5. Among women in the middle years (45-64), 35 percent of those living below the poverty level and 29 percent of those above the poverty level were rated obese by skinfold measurements. The comparable figure for men in the same age group was 5 and 13 percent respectively.

In general, a higher proportion of men above the poverty level was judged obese than men below the poverty level.

No clear relationship with poverty level existed for women. At some ages, the poorer women were more likely to be obese, while at other ages the relatively well-off were more likely to be obese.

Of those adults 17 years of age and over who rated themselves as overweight, almost two-thirds (64%) were trying to lose weight and 21 percent was trying not to gain. For both overweight males and females, the most commonly employed weight loss method is diet (57%), followed by diet and exercise combination (32%), and exercise alone (5%). Only 2.8 percent of those overweight persons trying to lose weight cites medication as the means of losing weight.

Figure 5



Obesity aggravates cardiovascular disease and osteoarthritis and increases the liability to hypertension, atherosclerosis, hernia, and gallbladder disease. Overweight may facilitate the emergence of latent diabetes in predisposed individuals as they approach an advanced age, and adds to the hazards of surgery. It is also of interest that the mortality from cirrhosis of the liver in obese males is 294 percent of the expected.

Obesity in children and adolescents is a common nutrition-related health problem. Juvenile-onset obesity presents special metabolic and psychological problems. For obese children of age 12, the odds against being normal weight adults are 4 to 1; and if weight reduction does not occur by the end of adolescence, these odds rise to 28 to 1.

Nutritional Problems:

> "Adequate food and sound nutrition are essential to good health. Not only are they crucial for human survival and key factors in the prevention and recovery from illness, but they are prerequisites for improving the quality of life. Many Americans at all socio-economic levels do not eat well. Nutritional problems range from undernutrition and 'dietary subnutrition,' to obesity from overeating, to the quality and safety of the food supply."
>
> Forward Plan for Health: FY 1978-82

The importance of nutrition becomes evident when one realizes that it is a critical factor in promoting health, preventing disease, and in recovering from illness. There are both direct and indirect costs to society from neglect of nutrition care in the total health care system. The impact of sub-optimal nutrition can be seen throughout the life cycle: in the complications of pregnancy in the poorly nourished women, increased chance of low birth weight infants, the high prevalence of obesity, the undernutrition in children and adults, widespread dental disease, the debilitation of malnourished elderly, and the high prevalence of chronic illness requiring dietary treatment. At the present time, seven of the leading causes of death in the U.S. have dietary implications: heart disease, stroke, hypertension, cancer, diabetes, arteriosclerosis, and cirrhosis of the liver. The American diet and our lifestyle are factors in each of these diseases.

Exercise

Exercise, as a health promotion technique, is not limited to overweight persons. As shown in Table 2, it is estimated that some 48.6 percent of the United States population age 20 and over engage in some form of weekly exercise.

TABLE 2

PERSONS AGE 20 AND OVER EXERCISING REGULARLY AND TYPE OF EXERCISE ACCORDING TO SEX
United States, 1975

Type of Exercise	Percent		
	Combined	Male	Female
Some Form of Weekly	48.6	48.5	48.7
Ride Bicycle	10.9	10.8	11.1
Do Calisthenics	13.5	13.5	13.5
Jog	4.8	7.2	2.7
Lift Weights	3.4	6.3	0.8
Swim	11.8	13.3	10.5
Walk	33.8	32.5	35.0
All Other	6.8	6.4	7.1

Source: Division of Health Interview Statistics, National Center for Health Statistics

Closely linked to the problem of nutrition and diet is the question of exercise as an important tool in health promotion. Physical inactivity, coupled with the rich diet of a relatively affluent society, has been cited as one cause of obesity and of a general decline of physical fitness.

In addition to obesity, habitual lack of exercise has been cited as a contributory cause of hypertension, chronic fatigue, premature aging, poor musculature and lack of flexibility that are the major causes of lower back injury, mental tension, and coronary heart disease. In some individuals, a regular program of exercise can lower serum cholesterol, reduce the clinical manifestations of heart disease, improve the efficiency of the heart and circulation, and reduce blood pressure levels in individuals with hypertension.

Accidents

The term "accident" is generally used to describe an isolated random event that occurs spontaneously. Such a term as "unavoidable" or "unpredictable" is, in fact, inaccurate. The incidence of accidents can be significantly reduced through engineering, forethought, and accident prevention mechanisms.

Accidents are the leading cause of death in the age groups 1 through 44 years in Montana and the fourth leading cause of death in the State and the United States. In 1977, over one-half the deaths of the 1 to 4, 5 to 14, and the 15 to 24 year age groups were caused by accidents.

Each year, more than 61,124,000 persons are injured as a result of all types of accidents in the United States. In 1975, 102,500 accident victims died and over 10,700,000 required bed care for a day or more. In addition, 380,000 suffered lasting disability at a cost of $6.2 billion in medical and hospital expenses and $15.4 billion in lost wages and productivity. Approximately one out of every eight hospital beds is occupied by an accident victim.

Some of the major contributors to morbidity and mortality from accidents result from the automobile and motorcycle. There is no single cause of these accidents. Prevention must be considered in terms of multiple factors that interdependently influence the driver, the vehicle, and the environment. The most important of these involving the driver and the driving environment are identified as:

Driver Related

1. Physical Health
2. Mental and Emotional Health
3. Age
4. Experience and Training
5. Alcohol and Drugs
6. Seatbelt Usage
7. Speed
8. Helmet Usage (motorcycle)

Environment Related

1. Road Conditions
2. Vehicle
3. Weather
4. Emergency Medical Services

Source: Georgia Dept. of Human Resources, New Health Outlook

The driver-related factors reflect biologic and life-style influences, almost all of which are controllable by the individual. Perhaps the greatest potential for reducing driver-related accidents is through preventive programs.

For many years, the public has been barraged by auto safety educational campaigns designed to instruct people to slow down because "speed kills." Hence, auto safety should have been uppermost in the mind of the public, but the mind seemed far from the heavy foot, which continued to propel the car in excess of posted speed. Other factors, however, combined to accomplish what education had not--a decline of over 42 percent in the national fatality rate from motor vehicle crashes between 1966 and 1976. An important contribution to this improvement was the reduction of the speed limit to 55 mph coupled with the federal government's pressure on states to enforce this limit.

A second factor in the improved mortality statistics has been the requirement, since January, 1968, that every car be equipped with lap belts and shoulder harnesses for all passenger positions. Although seat belt usage rates of 19 percent nationally can be construed to indicate public apathy, attention can be easily focused on the millions of Americans comprising this 19 percent who routinely wear seat belts and, thus, reduce their chance of death or serious injury by 35 to 50 percent.

An approach requiring no behavior change--such as engineering safer cars--has encountered little resistance. Installation of padded dashboards, energy-absorbing steering assemblies, shatter-resistant windshields, and other safety features has been correlated with a reduction in the types of injury they were designed to minimize.

Motor vehicle accidents are addressed in the "Accidents" section of this Plan. However, a short analysis on motorcycle injuries and accidents will follow in this section.

Motorcycle accidents and injuries have shown an upward trend--as shown in Table 3. The age group most associated with the use of motorcycles is 15 to 34 years of age.

TABLE 3
MOTORCYCLE ACCIDENTS
Montana 1965-1977

Reported Accidents	1965	1970	1977	% Increase 1965-1977
Total Accidents	220	293	458	52.0
Total Injuries	173	251	483	64.2
Fatalities	4	9	9	55.6

Source: Montana Department of Justice,
Highway Patrol Division

There is not a helmet law in Montana. Some authorities believe there is no question that wearing a helmet helps prevent serious injury or fatality. The helmet bill was introduced in the 46th Legislative Session in 1979 and was defeated.

OVERVIEW OF HEALTH STATUS SUMMARY

A review of the available health status measures reveals the overall pattern of mortality, morbidity, disability, and chronic conditions of Montanans. In addition, national data provide further insight into general patterns of mortality, morbidity and health-related lifestyles.

At the outset, it was seen that the crude death rate among Montanans is slightly lower than the national rate. However, it must be noted that despite the overall trend of declining death rates, certain causes of death are increasing among specified age groups. Those age-specific causes showing an increase in rate are strongly tied to social conditions, especially lifestyle and environment. Suicide is increasing among persons in the 15 to 24 and 25 to 44 age group. Cancer is rising among the group ages 25 to 44, 45 to 64, and over 65 years. Accidents, too, increased among the 5 to 14 and 15 to 24 year old age groups. Finally, cirrhosis of the liver increased in the 25 to 44 year old age group. Again, these causes seem to be rooted in the social fabric of society and many deaths might be alleviated through causes associated with lifestyle.

Turning to the causes of morbidity, it was found that Montana has an effective immunization program and that childhood contagious disease rates are considered low. This also holds true for tuberculosis. In contrast to declines in reported incidence of childhood diseases and tuberculosis, there has been a relatively stable number of infectious hepatitis cases reported. Furthermore, Montana's reported rates of venereal disease has risen from 82.88 to 290.5 per 100,000 population over the past eight years. Still, we are well below the nation's mean.

Chronic conditions are of special concern in Montana. Although State level data are not available, indications of the prevalence of specific conditions can be obtained from age-categorical national surveys. One of the more problematic chronic conditions is hypertension. National survey data indicate that, as of 1975, 56.6 percent of white hypertensives are probably not aware of their condition. It would seem that continued screening efforts should be directed at the Montana population, particularly white males.

Another chronic condition deserving attention is alcoholism. Among Montanans, it is estimated that some 8.5 percent of the

white popualtion and 70 percent of the young adult and adult Indian population are alcohol abusers.

Chronic conditions are important not only as causes of mortality but also because of the disability they generate. Chronic disability is most common among the elderly. The major chronic condition responsible for activity limitation is heart conditions, followed by arthritis and rheumatism.

Besides chronic conditions, considerable disability and loss of productivity results from job-related injuries. For the year 1978, the Montana Department of Labor and Industry reported 32,060 cases of disability due to job injuries. Of these, 50 were fatal injuries.

Finally, disability may result from developmental handicaps. The Montana Developmental Disabilities Planning and Advisory Council of the Department of Social and Rehabilitation Services estimates that in 1979, there are approximately 9,323 developmentally disabled persons residing in Montana. Of this total, some 6,000 are mentally retarded, 390 have cerebral palsy, and 546 are epileptic.

To complete the health status overview, several health-related lifestyles were examined. Much of the available data were cited from National Health surveys and reviews of literature. These studies show that one's perceived health status while generally high, is reflective of personal age and economic status. Next, cigarette smoking behaviors were reviewed. It was found that while there has been a general trend of decline in smoking, this trend is stongest among younger adults, especially males. However, there are indications that smoking may be increasing among persons 12 to 18 years of age, particularly females in this age group. To gain greater insight into alcoholism, national data on alcohol consumption behavior were obtained. Th data show that a number of lifestyle factors influence teenage and college age students' drinking patterns and that the numbers of teenagers and college aged students' drinking is increasing. Excessive eating behavior and information on obesity is more prevalent among females, especially females 45 years of age and older. It was found that some 64 percent of overweight persons say they are attempting to lose weight, and that the chief methods employed are diet and exercise. Regular exercise patterns may be viewed as reflecting overall disposition toward maintaining or achieving higher levels of wellness. National data indicate that some 48.6 percent of the population age 20 and over engage in some form of exercise at least weekly. Lastly, accidents cause mortality and morbidity of many Montanans in their prime years of life. Most accidents are avoidable.

While the available information pertaining to health status in general, and the health status of Montanans, in particular, is

fraught with inadequacies, a beginning data base is available. This base provides some answers and raises many questions for further study.

Programs aimed at primary prevention, or changing lifestyles, suffer from an inherent political weakness stemming from the fact that benefits to society from supporting these programs are often in the future. Congressmen, legislators and other elected officials, who are accountable for the allocations of resources, are less apt to allocate dollars today for distant benefits when the same dollars might be spent on programs with more immediate and visible returns.

Montana needs a real constituency for prevention; a solid block of consumers to insist that money be allocated for health promotion. Also, Federal and State policies are often in conflict with policies known to be in the best interests of the people's health. For example, most public health policy makers would agree that anti-smoking campaigns ought to be considered high priority. Yet, the Federal government continues to pay tobacco farmers a subsidy to support the price of tobacco, and Montana depends on cigarette tax monies.

Medicine in the United States is organized primarily to provide curative and therapeutic services. Less than 4 percent of the annual U.S. expenditure for health care goes for prevention. Many preventive routine services, such as nutrition counseling, patient education, even regular physicals, with pap and glaucoma checks, are not covered by third-party payors, public or private. By and large, health promotion and education have not been supported or recognized as part of health-care delivery system.

Lifestyle reform is one of the most cost-effective ways of delivering health, especially if more effective change-inducing techniques are developed. It is apparent that more is needed than a simple desire on the part of the government to promote health and/or reduce costs. We need more than simple slogans such as "individuals must be responsible for their own health" or "society can no longer afford self-destructiveness."

The purpose of the cost-effectiveness model is to find the best way or alternative (at the least cost) for obtaining a desired objective. Strategies which are contributory to cost-effectiveness and in providing alternatives for reducing the incidence of mortality and morbidity from causes associated with lifestyle may include the use of the following concepts:

1. To use techniques borrowed from other disciplines and professions to inform and motivate people;

2. Through the funding of, and provision of support to, research and demonstration programs designed to seek more effective methods to motivate people to adopt

lifestyle changes conducive to better health;

3. Through the development of a strong school health curriculla in the schools of Montana, to begin to teach the youngest citizens how to make the right decisions about their own lifestyle behavior; and

4. To support and encourage regional planning efforts for development of areawide plans for prevention and health promotion.

In the goals and objectives of this Plan, some preventive pilot projects have been mentioned. In fact, most goals, objectives, and recommended actions are aimed at promotion of health and prevention of illness.

Although this Plan is just a beginning of incremental planning, a base-line so to speak, the next State Health Plan will address more in-depth analyses of the needs, resources, and strategies aimed at prevention.

INFANT MORTALITY

INTRODUCTION

The profusion of influences that impinge on an individual's health are often impossible to identify, let alone measure. Maternal behavior, knowledge, family structure, cultural background, nutrition, biologic factors, economic status, and medical care inextricably intermingle in influencing the outcome of pregnancy.[1]

Many public health authorities consider infant mortality rates the single best indicator of the health status of the general population. More specifically, it is frequently considered to be an indicator of infant and maternal health, and points to possible problems in the delivery of health care for these groups. Health variables, which are closely associated with infant mortality, include: the age of mother, her health and pregnancy history, birth order of baby, race, socio-economic status, marital status, birth weight, gestation period and birth interval.

Infant mortality includes death from any cause during the first year of life. There are two general sub-classifications of infant deaths (see Figure 1): neonatal; those deaths occurring from time of birth through the first twenty-eight days of life; and post-neonatal, those occurring between the twenty-eighth day of life and the first year. This distinction is important in that the former focuses on mortality associated with congenital anomalies and the circumstances of gestation and delivery, whereas deaths in the latter sub-class are more likely to be related to factors in the surrounding environment.[2] The definition specifically excludes all classes of fetal death, including still-births.

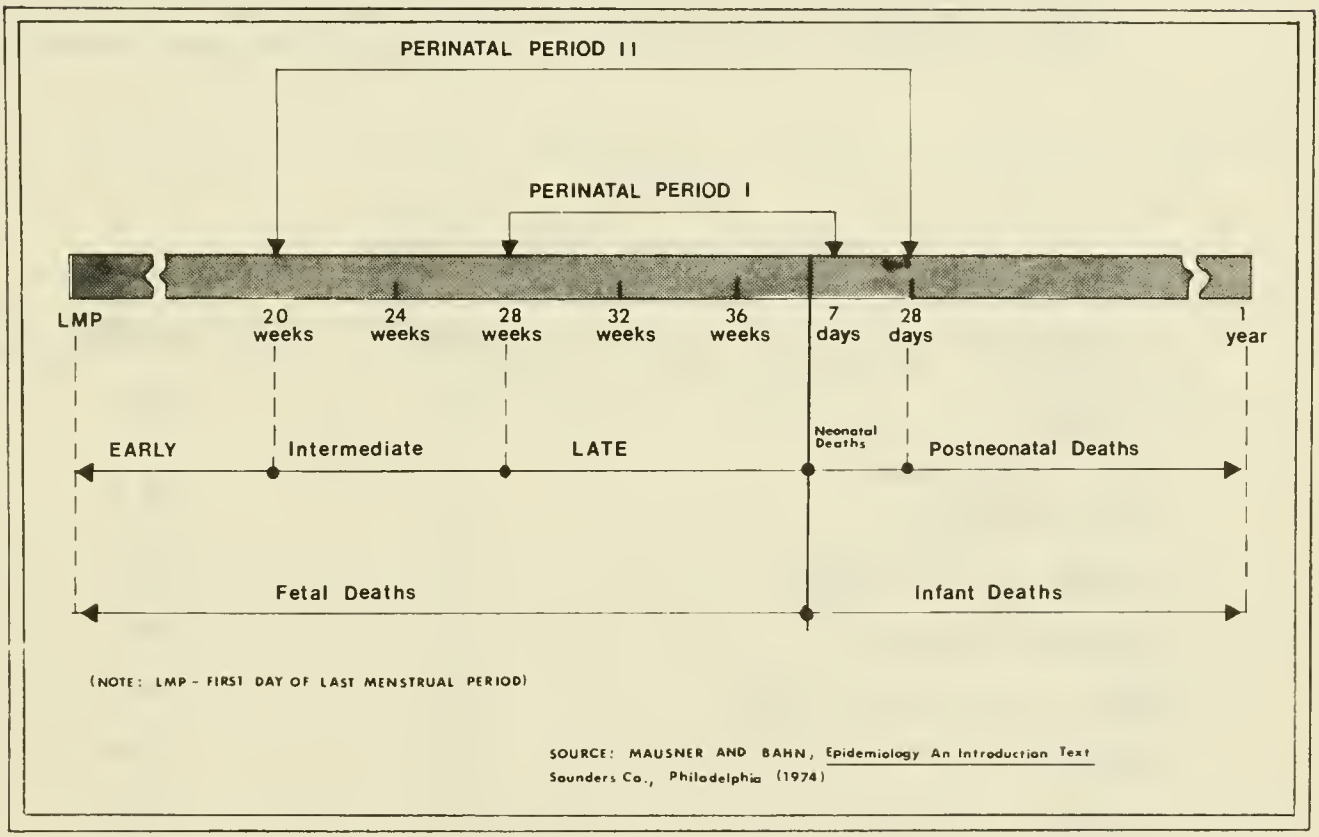
SUMMARY ANALYSIS

The factors affecting infant mortality may be classed under the headings of Biology, Environment, Lifestyle, and Health Care. Table 1 shows that this approach does not provide an unequivocal scheme for grouping the causes of infant death.

With the possible exception of congenital anomalies, it is obvious that each of the various causes of infant death is rooted in a combination of biological, environmental, life-style, and health-care-related factors. However, it is the belief of many experts that these factors may also be involved with congenital anomalies. Nevertheless, it is helpful to briefly assess the unique impact that each of these factors exert on the occurrence of infant mortality.

Figure 1

MEASURES OF MORTALITY IN EARLY LIFE



Health Field Concept Analysis:

1. Biological Factors:

It is in this area that the only clear absolute cause-effect linkage is possible. Congenital anomalies, accounting for nearly 17 percent of infant deaths in Montana, are largely attributable to genetic factors. Other biological conditions related to infant mortality are specific diseases, disease syndromes, age of the mother, mothers who previously gave birth to low birth weight babies, and the

parity of the birth. It has been shown that infants born to very young mothers (under age 18) and to older mothers (over age 35) have a lower probability of surviving through the first year of life; as well, high parity infants (seven or later in birth order) also have higher first-year mortality risks.[3] The extent to which these findings reflect purely biological conditions as opposed to a combination of biological and other factors is subject to speculation. The same may be said concerning the demonstrated relationship between low birth weight and increased risk of death during the first year of life. To a certain extent, low birth weight may be traced to prematurity, fetal abnormality, multiple delivery, and other biological complications of pregnancy. On the other hand, low birth weight is often attributable to lifestyle and environment.

Table 1

RESIDENT INFANT DEATHS BY CAUSE
MONTANA, 1977

Cause	Number	Percent
All causes	183	100.0
Birth Injury/Toxemia/ Hypoxia/Anoxia	41	22.4
Diseases of Early Infancy	37	20.2
Congenital Anomalies	31	16.9
Sudden Infant Death Syndrome	18	9.8
Infections	12	6.6
Accidents	12	6.5
All other Causes	32	17.5

Source: DHES, Bureau of Records and Statistics, Montana Vital Statistics, 1977

2. Lifestyle Factors:

There is growing evidence relating parental behavior to infant mortality. Both low birth weight and infant death syndrome are more likely in those infants whose parents

are smokers.[4] Also, inadequate dietary patterns and irregular prenatal care, the heavy use of alcohol and/or drugs, all may contribute to infant morbidity and mortality.[5] Chronic maternal alcoholism is recognized as one of the most common causes of fetal mental deficiency. Recently a pattern of malformation in infants born to women with severe chronic alcoholism has been identified and termed "fetal alcohol syndrome". Defects include prenatal and postnatal growth deficiency, small head size with mental subnormality, and facial and skeletal anomalies.[6] Finally, factors with less biological impact, such as employment of the mother outside the home, may decrease the probability of survival to age one.[7]

3. Environmental Factors:

Lifestyle inevitably spills over into environment. It is difficult to clearly classify many factors affecting infant mortality as being due to personal choice or external factors. As an example, it is known that high levels of infant mortality are located in a belt of counties running from Granite to Musselshell as shown in Figure 2. More generally, it has been demonstrated that the socio-economic characteristics of mothers (i.e., education, income) are related to infant survival.[8] To some extent, these parent characteristics are chosen and constitute lifestyle factors. Conversely, these conditions are often not consciously sought by the parents.

Conditions of the natural environment are less likely to be under the control of individual parents. Studies have shown that women living in high altitudes are more apt to have low birth weight babies than those living in lower altitudes. This possibly is an explanation for the high number of low birth weight babies born to resident mothers in Silver Bow, Powell, and Deer Lodge counties. Studies have also shown that women living in more highly polluted areas are more likely to have low birth weight infants.[9] Low birth weight is not only a major biological factor but is also related to lifestyle and environmental factors in infant mortality.

4. Health Care Organization:

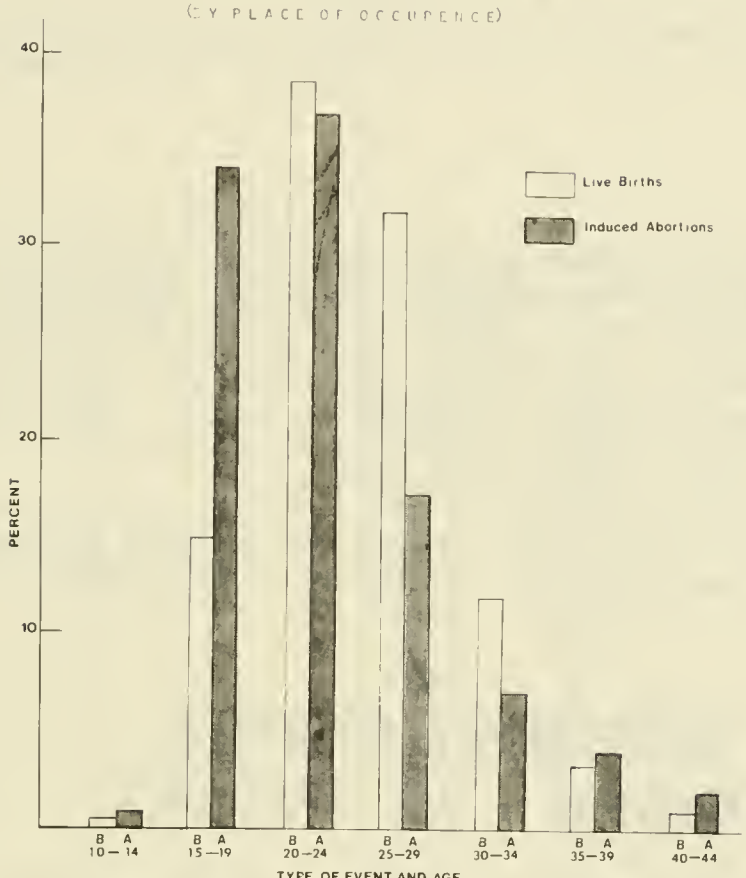
Many experts cite advances in the quality of health and medical services as the prime cause of reductions in infant mortality. It is known that adequate health care support saves the lives of a substantial number of infants. Those whose mothers receive little or no prenatal care are more likely to be low birth weight.[10] Also, lives are

saved through prompt medical attention to difficulties encountered before, during and after delivery and by virtue of the special facilities now available to care for newborns. Further, health-related services, particularly health counseling and education, offer the potential of further reducing infant mortality by increasing awareness of biological, lifestyle, and environmental risk factors. Further, one possible factor in the reduction we have seen in the Montana infant mortality rate in recent years is the effect of legally induced abortions on infant survival. Although there are few directly-confirming Montana statistics, it seems logical to assume that the high-risk groups of pregnant women would be present in disproportionate number among those seeking abortions. Such high-risk groups would include teenagers, those over 39, the unmarried, the non-white, and women suspecting that the fetus they are carrying might be malformed. Figure 3 shows live births and legally induced abortions for 1977 by age of women which indicates the percent of the events in each age group. Note the high percentage of women age 15-19 undergoing a legally induced abortion as compared with those delivering a live-born infant. While the numbers are smaller, the proportion of women aged 40-44 undergoing a legally induced abortion is almost three times the number of live births.

FIGURE 2

FIVE-YEAR INFANT MORTALITY RATES: MONTANA COUNTIES, 1973-1977
(BY PLACE OF RESIDENCE)

FIGURE
PERCENTAGE DISTRIBUTION OF LIVE BIRTHS AND LEGALLY
INDUCED ABORTIONS BY AGE OF WOMAN, MONTANA, 1977
(BY PLACE OF OCCURRENCE)



Source: Department of Health & Environmental Sciences, Bureau of Records & Statistics

Statistical Analysis:

As may be noted in Figure 4, Montana's infant mortality rates were basically below those of the United States from 1935 until about 1962. From 1963 through approximately 1973, Montana's infant mortality rates were generally higher than those of the U.S. It is interesting to note that the U.S. infant mortality rates declined each year since 1962. In 1977, a rate of 13.8 deaths per thousand live births was the lowest infant mortality rate ever recorded in Montana and is about equal with the U.S. rate. One factor which may have influenced this desirable state is that the percentage of low birth weight babies was also the lowest ever recorded.

On the other hand, the Montana birth rate continued to exceed the U.S. rate in 1977. The provisional crude birth rate for the U.S. in 1977 was 15.3 compared with Montana's rate of 17.5.

Overall, the birth rate is making a modest rebound from the record low reported in 1973.

To provide some statistical insight regarding infant mortality in Montana, certain high-risk factors will be addressed subsequently.

1. Age:

The best childbearing age range is considered to be 20 to 24 years of age. National data for 1975 show that over one-third of all infants are born to mothers 20 to 24 years of age and a little less than one-third to mothers 25 to 29 years of age. Nearly one-fifth of all infants are born to mothers under the age of 20 years. Over half of the births to unmarried women in 1975 were to women who had not reached their 20th birthday.

The following Table 2 shows the growing gap between the median age of unmarried and married mothers in Montana.

FIGURE 4

INFANT MORTALITY RATES: Montana & U.S., 1933–1977

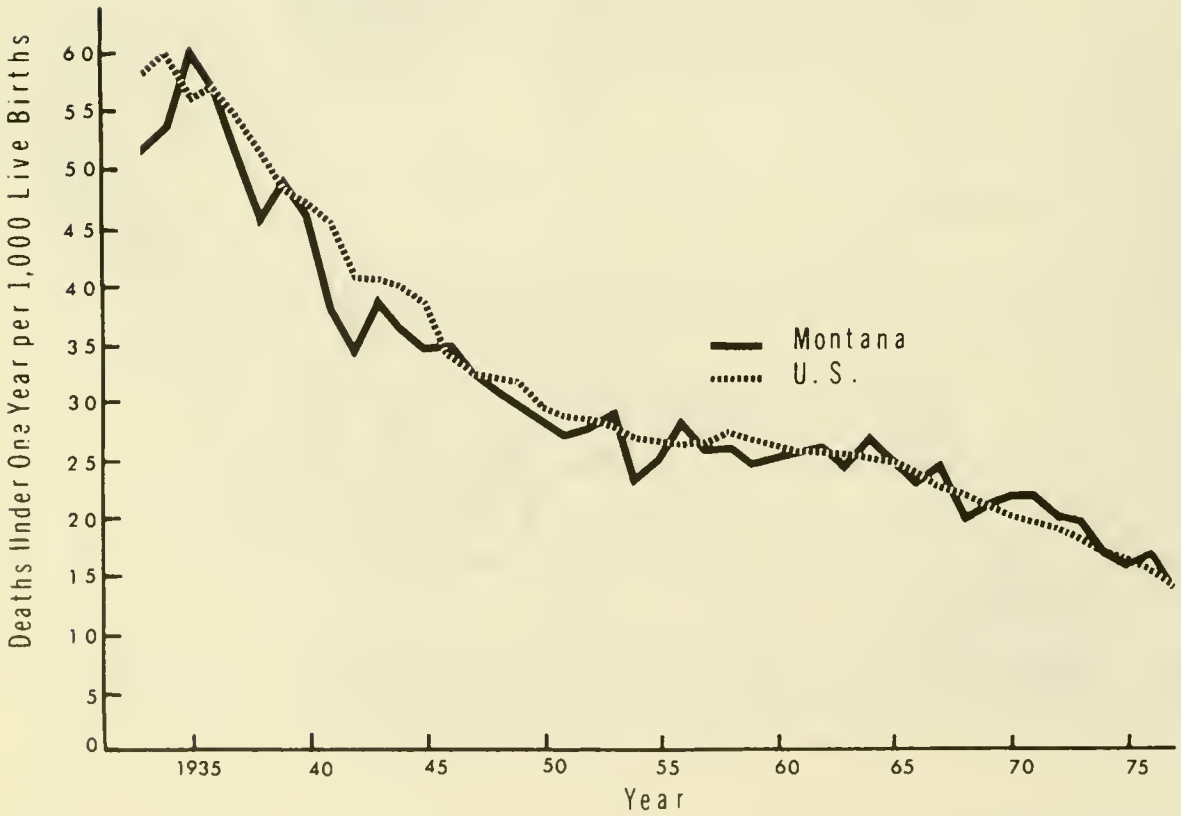


Table 2

MEDIAN AGE OF MOTHERS
MONTANA
1971-1977

Year	Median Age					
	White			Indian		
	All Births	Out-of-Wedlock Births	Median Age Differences for all Births and Out-of-Wedlock Births	All Births	Out-of-Wedlock Births	Median Age Differences for all Births and Out-of-Wedlock Births
1971	23.91	20.22	3.69	22.56	21.26	1.30
1972	23.95	20.10	3.85	22.73	20.92	1.81
1973	23.99	19.68	4.31	22.13	20.21	1.92
1974	24.06	19.63	4.43	22.15	20.34	1.81
1975	24.21	19.76	4.45	22.28	20.59	1.69
1976	24.49	19.65	4.84	22.38	19.84	2.54
1977	24.61	19.69	4.92	22.39	20.03	2.36

Source: SDHES, Bureau of Records and Statistics, 1977.

The number and percentage of out-of-wedlock births to Montana residents has increased since 1953. In 1953, only 1.75 percent of the births were out-of-wedlock while 11.04 percent were out-of-wedlock in 1977 for a rate of 110.4 per 1,000 live births. Mothers of children born out-of-wedlock are markedly younger than married mothers. In 1977, one-half of all mothers who gave birth were 24.6 years of age or younger, whereas one-half of out-of-wedlock mothers were 19.7 years of age or younger. It has been shown that pregnant teenagers are more susceptible to excessive weight gain, prolonged labor, toxemia, Caesarian deliveries, and low birth weight infants. Statewide, the percentage of total births to mothers less than 20 years of age continues to increase.

Although the 1970 census showed 3.9 percent of Montana's population was Indian, 8.9 percent of all births were to Indian mothers in 1977. Indian mothers were typically two years younger than white mothers in general and the out-of-wedlock birth rate per 1,000 was 32.7.

2. Birth Weight:

Infant mortality is inversely related to birth weight until birth weight reaches 4,000 grams or more. Infants weighing 2,500 grams or less have a mortality risk 17 times greater than those weighing more than 2,500 grams. In 1977, 6.3 percent of the infants born in Montana weighed 2,500 grams and under, and one out of every five low birth weight babies was born to a teen-aged mother. This is under the national average of 7.7 percent. Of the fourteen counties ranking in the high quartile for low birth weight rates (Figure 5) during 1973 through 1977, seven are in Region IV. Interestingly, none of the Indian Reservation counties was ranked in the high quartile for low birth weight rates during this period.

FIGURE 5

FIVE-YEAR LOW-BIRTH-WEIGHT RATES: MONTANA COUNTIES, 1973-1977
(BY PLACE OF RESIDENCE)

DEATHS WITH BIRTH WEIGHT UNDER 5 POUNDS 4 OUNCES PER 1,000 LIVE BIRTHS.
SOURCE: MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES AND STATISTICS.

---- 16.4 - 49.2 LOW QUARTILE
**** 51.4 - 73.6 MEDIUM LOW QUARTILE
**** 66.0 - 73.1 MEDIUM HIGH QUARTILE
**** 73.6 - 104.4 HIGH QUARTILE

3. Neonatal, Postneonatal, and Fetal Mortality:

The following Table shows summary data for infant and fetal mortality for specified years.

TABLE 3
INFANT AND FETAL MORTALITY
NUMBERS AND RATES
MONTANA
1973-1977

Cause of Death	1973		1974		1975		1976		1977	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Neonatal Deaths	155	13.6	153	12.5	129	10.7	148	11.7	119	8.9
Postneonatal Deaths	67	5.9	49	4.0	58	4.8	61	4.8	64	4.8
Total Infant Deaths	222	19.5	202	16.5	187	15.5	209	16.6	183	13.8
Fetal Deaths	105	9.2	125	10.2	112	9.3	104	8.2	119	8.9
Perinatal Deaths	260	22.6	278	22.4	241	19.8	252	19.8	238	17.7

Source: Department of Health & Environmental Sciences, Bureau of Records & Statistics

Fetal deaths were up from 8.2 per thousand live births in 1976 to 8.9 in 1977. But due to the large drop in neonatal deaths the perinatal death rate dropped from 19.8 per thousand deliveries to 17.7.

Figures 6, 7, and 8 are significant in that they depict population-based problem areas. It is important to note that most of the Indian Reservation counties (Figure 9) are high in postneonatal mortality rates when environmental and socio-economic conditions make a significant impact on infant mortality.

Just as important is the decrease in neonatal death rates from 13.6 in 1973 to 8.9 in 1977. This could point to improved medical care in Montana through both public and private programs.

Fetal death rates have remained relatively stable over this five-year period. It might be possible to improve these rates through changes in lifestyle and environmental factors.

FIGURE 6

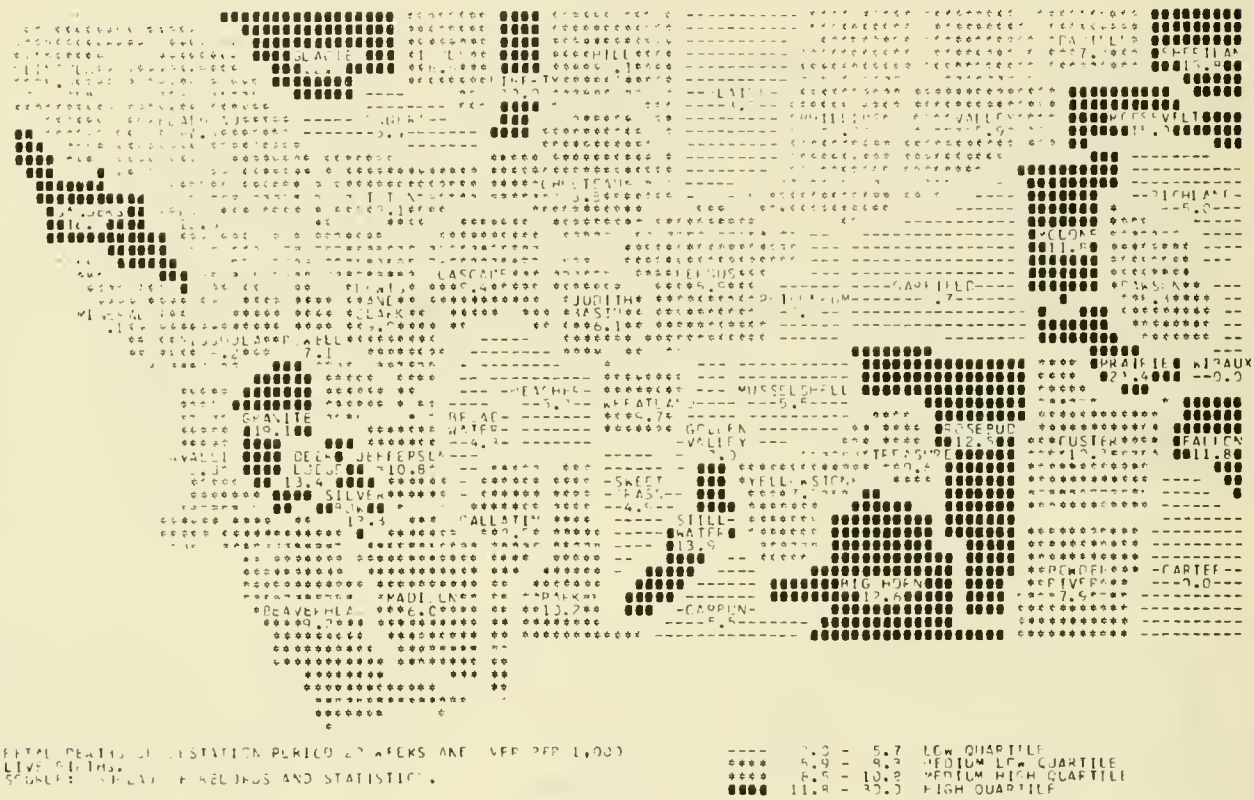


FIGURE 7

FIVE-YEAR NEONATAL MORTALITY RATES: MONTANA COUNTIES, 1972-1977
(BY PLACE OF RESIDENCE)

FIGURE

FIVE-YEAR POST NEONATAL MORTALITY RATES: MONTANA COUNTIES, 1973-1977
(BY PLACE OF RESIDENCE)

DEATHS AT AGES 28-364 DAYS PER 1,000 LIVE BIRTHS.
SOURCE: BUREAU OF RECORDS AND STATISTICS.

----	0.0 - 2.2	LOW QUARTILE
****	2.3 - 4.4	MEDIUM LOW QUARTILE
****	4.5 - 6.5	MEDIUM HIGH QUARTILE
****	6.6 - 19.3	HIGH QUARTILE

FIGURE 9

INDIAN RESERVATIONS
IN
MONTANA

CONCLUSIONS

Factors reviewed in this section have identified certain characteristics and population groups which have a higher risk for infant mortality and morbidity. The age of the mother, marital status, her health, socio-economic status, and birth weight would appear to exert the most influence on infant mortality. It is possible that biological factors associated with pregnancy have a greater impact upon neonatal mortality; and that lifestyle and environmental factors have a greater impact upon postneonatal mortality.

While infant mortality in Montana has steadily declined to the lowest rate ever recorded, it appears that still further reductions are possible. The achievement of such reductions will require changes in environmental and lifestyle factors as well as continued study of biological factors and provision of appropriate pre-and postnatal health care. Specific parental behaviors influencing infant mortality include smoking, poor nutrition, and substance abuse. Altering these lifestyle patterns is largely a matter of education and peer pressure. Environmental factors are of two types - physical and social. Major characteristics of the physical environment associated with infant mortality are pollution, sanitation, and housing quality. Action to mitigate problems in these areas must be sought through concerted societal action. The same is generally true of socio-economic factors related to infant mortality. Nevertheless, certain socio-cultural factors, including parental decisions concerning the appropriate age at which to begin childbearing and the number of children desired, are somewhat amenable to individual control (though strong, cultural pressures may exist) and therefore might be influenced through prevention and health promotion programs.

Many possible problem areas were identified in the statistical analysis portion of this section. There is need for more data, study, and review of the literature. Possible problem areas identified which need further study and research are:

1. How many prospective mothers seek prenatal care in the first trimester?
2. How many mothers seek postnatal care for their infants?
3. Do Indian mothers neglect seeking postnatal care?
4. Is there above average mortality and morbidity in infants born to teenagers?
5. Why are there pockets of counties with high levels of infant mortality in Montana?

This section is not meant to discourage prospective mothers from having babies but should encourage them to look at problem areas and influence change in their behavior.

GOALS, OBJECTIVES AND RECOMMENDED ACTIONS

GOAL 1: TO REALIZE THE LOWEST LEVEL OF INFANT DEATH WHICH IS BIOLOGICALLY FEASIBLE.

GOAL LEVEL 1.A: TO REDUCE INFANT MORTALITY IN THE STATE OF MONTANA TO 11.4 DEATHS PER 1,000 RESIDENT LIVE BIRTHS.

Rationale: While this target exceeds the national goal, such a target level seems feasible given the trend of recent years.

The overall 1977 rate for infant mortality was 13.8 per 1,000 live births. A major differential, however, exists between the white rate which was 13.6, and the non-white rate of 14.7 deaths per 1,000 live births in 1977.

OBJECTIVE 1.A.1:

TO REDUCE WHITE INFANT MORTALITY TO NO MORE THAN 11.5 DEATHS PER 1,000 RESIDENT LIVE BIRTHS BY 1984.

OBJECTIVE 1.A.2:

TO REDUCE NON-WHITE INFANT MORTALITY TO NO MORE THAN 12.7 DEATHS PER 1,000 RESIDENT LIVE BIRTHS BY 1984.

RECOMMENDED ACTION:

(See Maternal and Infant Services, Recommended Action 8.B.1.a:) Develop effective means for increasing the proportion of indigent and teenage women receiving prenatal care.

RECOMMENDED ACTION:

(See Maternal and Infant Services, Recommended Action 8.B.2.a:) Initiate planning and implementation processes required to expand full service pre and postnatal care programs.

RECOMMENDED ACTION:

(See Mental Health, Recommended Action 4.A.1-2.c:)
Establish at least one "Optimum Growth" Primary Prevention Model in the State.

GOAL: (SEE MATERNAL AND INFANT SERVICES, GOAL 9)
TO ASSURE THE AVAILABILITY AND ACCESSIBILITY OF EDUCATIONAL PROGRAMS AS PART OF THE PRENATAL, CHILDBEARING AND REPRODUCTIVE SERVICES TO ALL WOMEN IN MONTANA.

GOAL 2: USE MATERIAL GATHERED BY THE PSRO TO UPDATE THE NEXT STATE HEALTH PLAN.

ACCIDENTS

INTRODUCTION

In Montana, and throughout the U.S., accidents are the fourth leading cause of death and are the leading cause of death among persons ages 1 - 44.[1] In addition, injuries due to accidents cause extensive morbidity as well as economic and social disruption.

Accidents strike among the relatively young. In Montana, accidents accounted for 58.5% of deaths in the age group 1-4, two-thirds of deaths in the 5-14 age group and 70.3% in the 15-24 age group in 1977.[2]

SUMMARY ANALYSIS

All types of accidents, excluding motor vehicle, in 1977, accounted for approximately one of every two violent deaths. Falls are the dominant cause of accidental deaths, excluding motor vehicle. From 1960 to 1977, about 12% of accidental deaths was caused by falls. There are almost three times as many deaths from falls as from fire and explosion or drowning. (See Table 1.)

TABLE 1

Types of Accidental Deaths as a Percent of All Accidental Deaths, Montana, 1973-1977 (by place of residence)

YEAR	FALLS	DROWNING	FIRE & EXPLOSION	MOTOR VEHICLE	TOTAL ACCIDENTS
1973	12.3%	3.8%	4.3%	53.0%	611
1974	13.4%	6.3%	3.0%	51.7%	559
1975	13.5%	5.5%	5.5%	48.3%	584
1976	12.3%	5.5%	3.8%	50.3%	579
1977	11.3%	4.7%	4.9%	52.6%	574

Source: Montana Department of Health & Environmental Sciences, Bureau of Records & Statistics, MONTANA VITAL STATISTICS, 1973, 1974, 1975, 1976, 1977.

In the area of work-related injuries and deaths, there were 31,734 reported injuries in FY 1977 and 46 deaths--32,060 reported injuries and 50 deaths in FY 1978.[3]

The industry with the most accidents in FY 1978 also has the most fatal accidents--that is the logging industry, which comes under the Division of Workers' Compensation category of "manufacturing." Manufacturing reported 7,531 accidents, which is 23.5% of accidents reported and 24% of fatal accidents reported in FY 1978.[4]

The quartile map (see Figure 1) shows the five-year death rates for motor vehicle accidents by county in Montana. Figure 2 shows the five-year death rates by accidents other than motor vehicle. Five counties--Sanders, Lake, Golden Valley, Big Horn, and Treasure--fall in the high quartile in both categories.

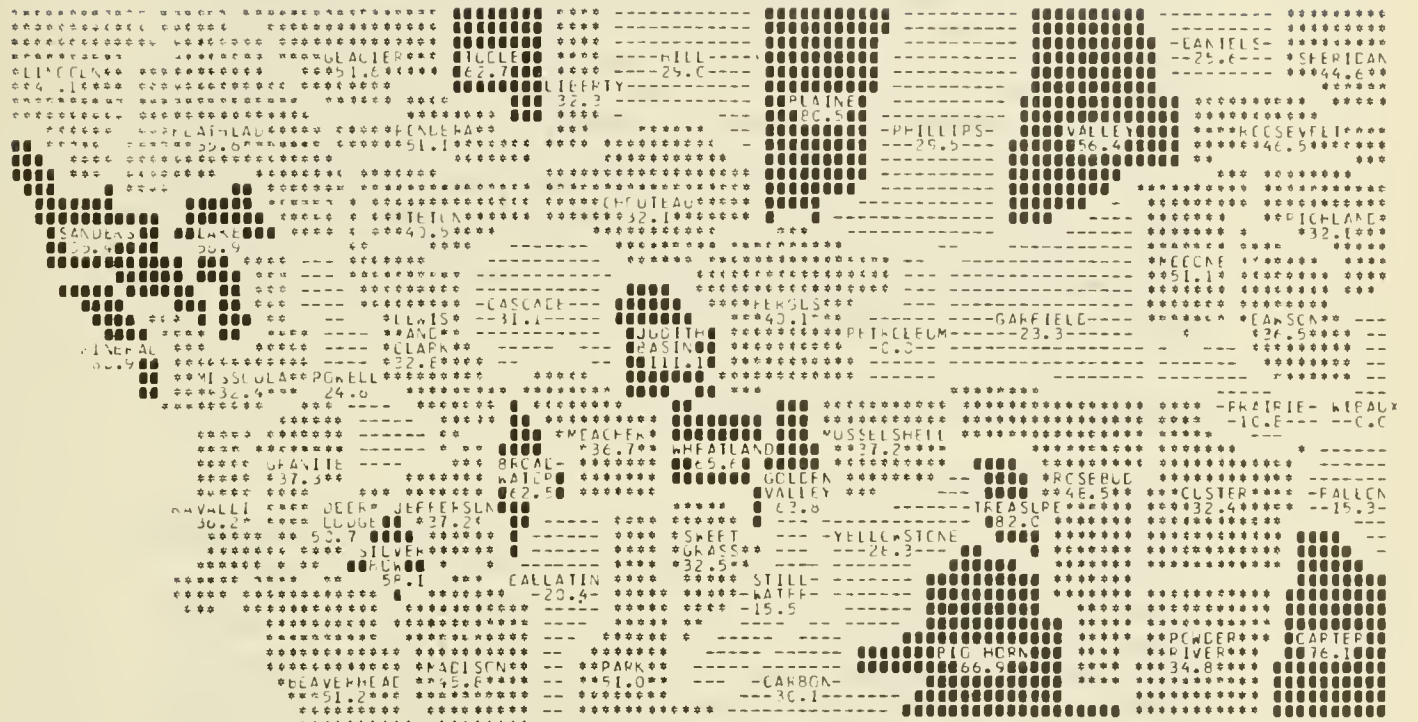
FIGURE 1

FIVE-YEAR DEATH RATES FOR MOTOR VEHICLE ACCIDENTS: MONTANA COUNTIES, 1973-1977
(BY PLACE OF RESIDENCE)

DEATHS PER 100,000 ESTIMATED POPULATION.
EIGHTH REVISION ICDA PUBLICS 810-823.
SOURCE: BUREAU OF RECORDS AND STATISTICS
AND BUREAU OF THE CENSUS.
---- 0.0 - 30.8 LOW QUARTILE
**** 31.0 - 41.0 MEDIUM LOW QUARTILE
**** 41.1 - 64.1 MEDIUM HIGH QUARTILE
**** 64.9 - 105.0 HIGH QUARTILE

FIGURE 2

FIVE-YEAR DEATH RATES FOR ACCIDENTS OTHER THAN MOTOR VEHICLES: MONTANA COUNTIES, 1973-1977
(BY PLACE OF RESIDENCE)



DEATHS PER 100,000 ESTIMATED POPULATION.
EIGHTH REVISION ICDA CODES 800-807, 810-949.
SOURCE: BUREAU OF RECORDS AND STATISTICS
AND BUREAU OF THE CENSUS.

----	0.0 - 31.1	LOW QUARTILE
****	32.1 - 37.2	MEDIUM LOW QUARTILE
****	37.3 - 51.4	MEDIUM HIGH QUARTILE
****	55.4 - 111.1	HIGH QUARTILE

Nationwide, accidents are overwhelmingly the leading cause of death among the young population. Among children aged 1-4, 40% of the deaths are caused by accidents. Among children aged 5-14, 51% of the deaths are caused by accidents.[5]

Accidents rank second (exceeded only by certain perinatal deaths) as the average number of life years lost. The total for accidental deaths is 40.45 life years lost; with motor vehicle accidents, 45.65 life years lost; and other accidental deaths, 34.60 life years lost.[6]

While some accidents may be due totally to human misaction, or to environmental components which may impair human judgement or functioning, most accidents are the result

of a number of interacting human and environmental factors. Therefore, the effectiveness of efforts to prevent accidents by behavioral modification or the reduction of potentially adverse factors in the environment, is limited by the extent to which human and environmental factors interact. In short, although behavior modification and changing environmental conditions can be a valuable means of preventing accidents, many accidents cannot or will not be prevented.[7] Therefore, those methods which seek to minimize or reduce injury should be accorded as much consideration as those designed to prevent accidents.

HEALTH FIELD CONCEPT ANALYSIS:

Environmental Factors

Specific environmental conditions can lead to accidents. Environmental conditions, such as Montana's climate causing dangerous road conditions many months of the year, are a factor in motor vehicle accidents. Many of the motor vehicle accidents in Montana are due to failure to anticipate road conditions and not due to heavy traffic. (Motorcycle accidents are included in motor vehicle accidents. See Lifestyles.)

Biological Factors

Biological factors such as age, sex, and physiological functioning partially determine a person's vulnerability to certain types of accidents and his or her ability to withstand or recover from injury.

Lifestyle Factors

Lifestyle factors such as daily living patterns, speeding, and alcohol consumption also contribute to the occurrence of accidents. Motor vehicle accidents are most frequently associated with times that people travel to and from work. In addition, periods in which the greatest number of fatal motor vehicle accidents occur coincide with peak hours for alcoholic beverage consumption outside of the home.[8]

Motor vehicle accidents are not a medical diagnostic category. Rather, it represents a form of social illness which is the cause of many unnecessary deaths. Its origin lies in lifestyles. Continued emphasis on

driver education, safety programs, improved vehicle design and increased availability of emergency medical service are necessary to realize reductions in mortality from motor vehicle accidents.

Health Care Organization

Although health care organization is not usually a causal factor in accidents, it can have an impact on accidental morbidity and mortality rates through the immediate provision of care to persons who have sustained injuries. Accidental injuries tend to be fatal more often in communities with the least adequate emergency medical services. This is often reflected in accidental death rates for areas which are predominently rural.

STATISTICAL ANALYSIS:

Falls

Falls are the leading cause of accidental deaths among persons 65 and above. In 1977, 51 of 65 deaths due to falls were in the 65 and over age group--in 1976, 52 of 77, and in 1975, 65 of 81 for an average of 75% of all deaths due to falling in the 65 and over age group.[9]

Most falls occur at home or in the workplace. One of the primary contributing factors is the aging process, which generally reduces both a person's ability to avoid falls and to withstand or recover from injuries due to falls.[10]

Certain types of work activity and structural design are other factors which affect the incidence of accidental falls. Four of 46 work-related accidental deaths in FY 1977 were caused by falls. The 13.7% of work-related accidents in FY 1978 were caused by slips and falls--14.5% in FY 1977--17.1% in FY 1976--third leading cause of accidents in all three years.[11]

Drownings

Drownings are only slightly higher in percent of accidental deaths than fire and explosion. Montana has a vast network of lakes, rivers, and streams, covering most of

the State. The largest percentage of drownings is in the 1-19 age group. In 1977, 62.0% of drownings was in the 1-19 age group, 62.5% in 1976, and 57.1% in 1975.[12] Unguarded areas used for swimming and the increase in boating and water sports are contributing factors to the drownings in Montana. Boat and water safety need more emphasis. As in most new, fast-growing sports and industries, regulations come late.

CONCLUSIONS

Accidents are the leading cause of death in all age groups with the exception of ages 65 and over. The largest number of accidental deaths is from motor vehicle accidents which continue to fluctuate in Montana. Apparently, the 55 mile-per-hour speed limit is not as effective in reducing motor vehicle accidents in Montana as it is in many other states. Lifestyle factors such as stress, alcohol abuse, and drug abuse also elevate the accident rate.

Although falls and drownings are second and third leading causes of accidental deaths, the overall number of people affected is small. Community and State-level programs should continue to aim at reducing these death rates.

The 1-44 age group is considered the highest risk group because they are more physically active and, therefore, more vulnerable to accidents.

Continued emphasis on household, industrial, and water and other safety programs is needed if reductions in accidents are to continue.

GOALS, OBJECTIVES, RECOMMENDED ACTIONS

GOAL 3: TO REDUCE THE MORTALITY, MORBIDITY, AND DISABILITY CAUSED BY ACCIDENTS.

Rationale: Montana's accidental death rate is consistently higher than the national rate. This is due primarily to higher death rates from motor vehicle accidents.

OBJECTIVE 3.A.1:

TO REDUCE STATEWIDE RESIDENT ACCIDENTAL DEATH RATE CAUSED BY MOTOR VEHICLE ACCIDENTS BY 9% FROM THE 1977 RATE OF 39.7 DEATHS PER 100,000 POPULATION TO 35 DEATHS PER 100,000 BY 1983.

RECOMMENDED ACTION 3.A.1.a:

Develop and/or support changes in legislation and programs to deter people from accidental vehicle death.

1) Develop and/or support legislation which will effectively deter people from driving while under the influence of alcohol.

2) Require all drivers and passengers to wear seat belts.

3) Expand treatment programs including education and behavior improvement for those convicted of DWI.

4) Expand and improve safe driving programs in the schools and media campaigns, giving special attention to the drunk driver and the teenage driver.

5) Support legislation for motor vehicle inspection services.

1. Major Milestones

   a. SHPDA and HSA staff will work with agencies and organizations (OPI, Highway Department, Department of Institutions, and others) to develop recommendations for primary prevention program.

b. SHPDA and HSA staff conduct a study and develop a report of recommendations including changes in legislation.

c. Submit study report to SHCC for approval.

d. SHPDA and HSA incorporate recommendations into planning and implementation activities.

2. Locus of Responsibility

Start-up activities will involve SHPDA and HSA staff contacting the Montana Highway Motor Vehicle Division and the Montana Automobile Association and any other agency which would be involved in motor vehicle safety. Study and analyze the deterrent effect of legislation and propose changes if deemed necessary. SHPDA staff coordinate efforts to get legislation introduced and passed.

3. Resource Requirements

Manpower:	SHPDA staff:	.05 FTE
	HSA staff:	.05 FTE
Projected Cost:	Staff time only cost involved.	

4. Anticipated Impact

Lowering the resident motor vehicle accidental mortality, morbidity, and disability rates in Montana.

OBJECTIVE 3.A.2:

To reduce the State's overall mortality rate from accidents, excluding motor vehicle, by 9% from the 1977 rate of 35.7 deaths per 100,000 population to 32 deaths per 100,000 population by 1983.

Rationale: Accidental death rates, excluding motor vehicle, are high in Montana, especially among the young. Over 30% of the deaths in the 1-24 age group are non-motor vehicle accidental deaths.

RECOMMENDED ACTION 3.A.2.a:

Promote and support prevention programs to decrease accidental death rates.

1) Promote widespread safety education and accident-prevention programs (i.e., fire prevention, water and boater safety programs, hunter safety, and snowmobile safety programs) through such groups as the American Red Cross, Fire Departments, Montana Department of Fish and Game, YMCA, YWCA, and other local and State groups.

2) Support the dissemination of information concerning the toll-free number linking Montana citizens to poison control centers.

3) Support the establishment of quality Emergency Medical Services in cooperation with the State EMS Bureau.

4) Support intensive school and public education campaigns to alert the public to accidental hazards in the home and community, and to promote general safety practices.

RECOMMENDED ACTION: (See SUICIDE AND ALCOHOLISM, RECOMMENDED ACTION 4.A.1-2a)

To establish in at least two schools a model program for primary prevention.

SUICIDE AND ALCOHOLISM

This analysis addresses two major problems, suicide and alcoholism, as "health status" and not "health systems" problems. Services, facilities, and programs are addressed in Federally approved Plans on Mental Health and Alcoholism and Drug Abuse submitted by the Mental Health and Residential Services Division and the Alcohol and Drug Abuse Division of the Department of Institutions.

Suicide and alcoholism are blatant health problems in Montana. The State ranks thirteenth in the nation for suicide deaths and for overall alcohol consumption (4th in beer consumption) per 100,000 population. To date, there has not been an appreciable change in the incidence or prevalence of these problems with the advent of specific programs and services. This change will possibly take place in the future via comprehensive prevention, intervention, and education programs.

INTRODUCTION

The State of Montana defines mental illness and alcoholism in the following manner.

> "'Mental disorder' means any organic, mental, or emotional impairment which has substantial adverse effects on an individual's cognitive or volitional functions."
> M.C.A. 53-21-102

> "'Alcoholic' means a person who has a chronic illness or disorder of behavior characterized by repeated drinking of alcoholic beverages to the extent that it endangers the health, interpersonal relationships, or economic functions of the individual or public health, welfare, or safety."
> 46th Legislative Session, 1979
> H.B. 844

Even though the definitions have a similar tone, the varying schools of thought in the mental health and alcoholism areas must be taken into account. There are theories of physical causation, psychological theories, and sociocultural theories. Out of these specific and theoretical frameworks come bits of knowledge which are operationalized in terms of programs for afflicted persons. While it is apparent that elements of all these studies and theories are valid and relevant, it is also true that they must be viewed together, collectively, to accomplish a total view of man's problems. There are no simple, singular causes.

Also, there are no simple, singular treatment modalities. A treatment modality which helps one person might very well not help another. Mental health professionals vary from utilizing eclectic, behavioral, or Freudian approaches, among others. Alcoholism treament, on the other hand, varies from Alcoholics Anonymous, medical, and behavioral change treatment concepts.

Many people in the field of mental health and alcoholism and drug abuse believe that the strong reliance on the medical model has led to a preoccupation with pathology and a relative absence of work in the area of positive mental health and prevention of alcoholism. During the past decade, there has been an effort to focus more on this area. Community Mental Health Centers, Alcohol service programs, and other related health programs are beginning to provide consultation and education services, group therapy, and prevention programs, to name a few positive approaches to these problems.

With the growing awareness of the major roles positive mental health and prevention are playing, a full swing toward promoting mental health and preventing mental illness and alcoholism may result. It is important to recognize that community mental health is predicated on the quality of community life, and on the interaction between people and social institutions. Promoting independence in individuals, in their ability to cope, to realize their goals, is possible only within a supportive emotional, social, and economic context.

The growing awareness of rape, child abuse, spouse battering, substance abuse, and suicide, along with mental illness, must be seen as manifestations of both individual and societal dysfunction. If the world is violent, disharmonious, and nonsupportive, then people often adopt deviant means to survive, or not to survive, in it. Two extreme means of escape are suicide and alcohol abuse.

SUICIDE

Like any form of death, suicide carries with it the aura of tragedy. Unlike other forms, however, it is considered in most societies as not only tragic, but also avoidable, and this avoidability stamps it as a social problem.

We in Montana must ask, "Why do so many individuals commit suicide?" and "What can we do to ameliorate this problem?"

SUMMARY ANALYSIS

Health Field Concept Analysis:

1. Biological Factors. The biological needs that appear most relevant to human motivation and behavior include visceral needs, the need for safety and avoidance of pain, the need for stimulation and activity, and the need for sexual gratification.

   The failure to meet basic biological needs--as indicated by malnutrition, disease, extreme fatigue, and related conditions--either may lower an individual's stress tolerance and thus act as a predisposing cause in emotional and/or mental disorders or may itself be the precipitating condition of feelings of hopeless, depression, and despair.

   Also, studies support the concept of genetic predisposition to emotional disorder which include manic depression and depressive psychosis.[1]

2. Environmental Factors. Suicide, as other manifestations of emotional disorder, is seen as having complex causes; these can include life stresses, the quality of the total environment, the family, peers, and community. A rapidly changing society is presenting stresses to both individuals and communities in Montana for which they are not prepared. Reducing anxiety and achieving purpose and direction in life can be preliminary to the alleviation of suicide. This does not preclude healthy portions of stress and anxiety as being good. Actually, some anxiety and stress is conducive to motivation and achievement.

   Although genetic endowment provides potentialities for both biological and psychological development, the shaping of potentialities--in terms of perceiving, thinking, feeling, and action--depends heavily on the physical and socio-cultural environment.

3. Lifestyle Factors. Lifestyle is the general pattern of assumptions, motives, cognitive styles, and coping techniques that characterize behavior and give it consistency. Behavior patterns depend heavily on models beginning with parents, then extending to the peer groups and other significant people. It is thought that lifestyle plays a part in the suicide rate in Montana with many single parent families, peer pressure, family drinking patterns, and the high rate of substance abuse.

4. Mental Health Care System. The mental health care system is explained thoroughly in the State Mental Health Plan.

Statistical Analysis:

In 1977, suicide was the seventh leading cause of death in Montana. The State ranked thirteenth nationally in per capita suicide rate in 1975. Since 1950, Montana's suicide rate has been consistently higher than the national rate as can be noted in Table 1.

Table 1

SUICIDE RATES PER 100,000 POPULATION

MONTANA AND THE U.S. FOR SELECTED YEARS

	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977
MT	12.4	15.9	13.3	11.4	16.5	12.1	15.0	16.6	15.0	17.1	18.8
U.S.	10.2	10.6	11.1	11.6	11.7	12.0	12.0	12.1	12.7	12.5	N/A

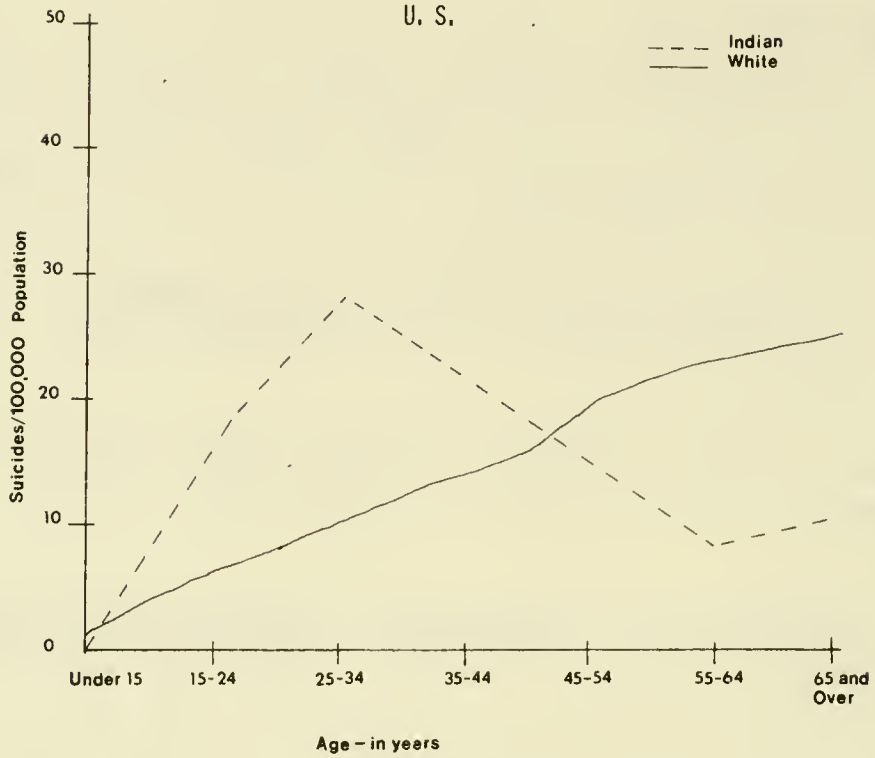
Source: State Department of Health and Environmental Sciences, Bureau of Records and Statistics, Montana Vital Statistics, 1977.

Suicide attempt rates are also a major element of the problem. Although there is not available data to estimate the rate in Montana, the estimated national rate is a nine to one ratio to deaths.

Three factors which are often statistically correlated with high suicide rates are divorce, age, and race. The divorce rate in Montana is one of the highest in the nation. Age, another contributing factor, is also statistically correlated to suicide. In the 15 to 24 and the 25 to 44 age categories, suicide ranked as the second and third leading causes of death respectively. It is worth mentioning that 87.6 percent of the 15 to 24 year age groups' deaths involved violence--accidents, suicide, and homicide--in 1977. Suicide death rates are approximately two times higher (30.8/100,000) among reservation Indians than for Whites in Montana.[2] This ratio is lower than the U.S. average which is approximately three to one. (See Figure 1.) Possibly Indians lack self-determination to achieve goals due to their social isolation and stress factors (such as changing jobs and unemployment), and may consider themselves different from the general population.

FIGURE 1

AGE-ADJUSTED RATES FOR SUICIDE
PER 100,000 POPULATION BY AGE AND RACE
U. S.



SOURCE: Kramer, Redick & Locke: Mental Disorders, Suicide. Vital and Health Statistics Monographs, American Public Health Assoc., Harvard Univ Press

As can be noted on the quartile map, (Figure 2), there is a pocket of counties in the northwestern portion of the State with a high incidence of suicide. Those Montana counties in the high quartile consist of two non-rural counties, Flathead and Lewis and Clark, and twelve rural counties. The counties with the highest suicide rates are shown in Table 2.

FIGURE 2

FIVE-YEAR DEATH RATES FOR SUICIDE: MONTANA COUNTIES, 1973-1977
(BY PLACE OF RESIDENCE)

DEATHS PER 100,000 ESTIMATED POPULATION.
EIGHTH REVISION ICDA CODES 950-959.

---- 0.0 - 10.8 LOW QUARTILE
**** 10.9 - 14.6 MEDIUM LOW QUARTILE
**** 14.8 - 18.6 MEDIUM HIGH QUARTILE
**** 19.9 - 35.2 HIGH QUARTILE

TABLE 2

MONTANA SUICIDE DEATHS RATES PER 100,000 BY COUNTY

1973 - 1977 (inclusive)

COUNTY	Rate 1973-1977	Population 1977	No. of Suicide 1973-1977
Flathead	21.0	46,400	46
Lewis & Clark	24.8	39,300	46
Sanders	25.2	8,400	10
Lake	22.5	17,600	19
Pondera	19.9	7,400	7
Teton	24.9	6,500	8
Powell	21.9	7,400	8
Broadwater	27.8	3,100	4
Madison	35.2	5,700	10
Blaine	20.1	7,000	9
Golden Valley	21.3	900	1
Carbon	30.1	8,200	12
Daniels	25.6	3,100	4
Powder River	34.8	2,400	4

SOURCE: State Department of Health & Environmental Sciences,
Bureau of Records and Statistics,
Montana Vital Statistics, 1973 through 1977.

Even though an attempt was made to minimize the problem of small numbers for counties with small populations by accruing data over a five-year period, it can be noted there are problems. For example, taking into account the sparse population in Golden Valley county, even one suicide depicts a problem area, when it actually is not. However, for the most part, the quartile map does serve a useful utility in pointing out particular problem areas, even with this limitation. It should also be noted that most of the more populated areas, considered non-rural, are either in the high or the medium high quartile rates for suicide. In addition to Lewis and Clark and Flathead counties, Missoula, Cascade, Yellowstone, and Deer Lodge counties also have high incidence of suicide.

The pattern of suicide in Montana differs somewhat from the national pattern. Nationally, more than one-half of the suicides being committed were by persons over 45 years of age; three times as many men as women commit suicide; women make more suicide attempts, generally using less lethal means; the incidence of suicide has shown a marked increase among adolecents and young adults. In Montana, more than one-half of the suicides are under the age of 45 years; five times as many men as women commit suicide; women tend to use violent means to carry through the act of suicide; and, there has been a marked increase of suicide among adolescents and young adults.

The suicide problem in Montana may be much more serious than has been suggested, since many self-inflicted deaths are certified in official records as being attributable to other "more respectable" causes of death than suicide. Experts have judged that the number of actual suicides is anywhere from two to five times the number officially reported.[3]

Nor can statistics, however accurate, begin to convey the tragedy of suicide in human terms. First, there is the seemingly senseless loss of life by an individual who may be ambivalent about living, or who does not really want to die. Second, the tragic problem arises from the long-lasting distress among significant others (i.e., family, peers, colleagues) that may result from the action. Third, the loss to society is significant, as the average number of life years lost caused by suicide was 32.85 during 1977. This depicts the large number of young people commiting suicide.

ALCOHOLISM

Cambyses, King of Persia in the sixth century B.C., had the dubious distinction of being one of the first alcoholics on record. Many other early cultures, including the Egyptian, Greek, and Roman, made extensive and often excessive use of alcohol, principally wine. The oldest surviving winemaking formulas were recorded by Marcus Cato in Italy almost a century and a half before the birth of Christ. About 800 A.D., the process of distillation was developed by an Arabian alchemist, thus making possible an increase in both the range and potency of alcoholic beverages.

The above is to point out that mood alteration is as timeless and ubiquitous as man himself. There are few periods in history or cultures in the world where alcohol has not been used.

It is largely in the West, in fairly recent times, that alcohol abuse has been extensive and has been perceived as a problem.

In large part, alcoholism is a social problem. It can be understood only in this context. The U.S. and the State of Montana alternately gain enormous economic and social profit and decry the use of alcohol from a moral stance. This cannot help but confuse the issue of widespread alcohol abuse and alcoholism. Alcohol consumption is rooted in our society. It is seen as beneficial in social interaction, treating some illnesses, and in dealing with occasional stress.

The potentially detrimental effects of alcoholism--for the individual, his family, and society--are legion. In relation to alcohol, Bengelsdorf has pointed out that:

> "...its abuse has killed more people, sent more victims to hospitals, generated more police arrests, broken up more marriages and homes, and cost industry more money than has the abuse of heroin, amphetamines, barbiturates, and marijuana combine."[4]

An estimated 9 million Americans, and 86,500 Montanans are alcohol abusers and/or alcoholic individuals.[5]

SUMMARY ANALYSIS

Health Field Concept Analysis:

1. Biological Factors. Alcohol causes varied and complex effects on the central nervous system such as feelings of exhilaration, enhanced sociability, and impairment of performance on central cognitive and perceptual tasks. Among the physical signs of intoxication are slurring of

speech, abnormal gait, impaired motor performance, and, in some instances, disturbances of sensory perception. Extreme intoxication may lead to depression of the central nervous system, and to a state of stupor with an attendant risk of death.

Alcohol abuse and alcoholism are implicated as primary or related causal factors in many pathological conditions such as brain disorders; increased risk of accident, injury, and death; cirrhosis of the liver; and disease of the heart; among others. These disorders undoubtedly exacerbate other illnesses when they occur in alcoholic persons, and contribute to the substantial reduction of their lifespan.

Personality traits and physiological disposition may be important in determining the level of alcoholism problems. From the limited research available, personality traits include low stress tolerance, a negative self-image, feelings of isolation, insecurity, and lack of self-confidence. Also questions have been raised in the physiological dynamics of individuals who possibly have a predisposition to alcoholism. These include genetic vulnerability and dysfunction of the endocrine system.

2. Environmental Factors. Possibly Montana's environmental factors predominate among the correlates of alcohol-related problems. Even the smallest community in the State might have a grocery store but almost universally has a bar. Montanans are members of a rugged, western culture in which ofttimes, there is pressure to drink socially. Drinking is part of an institutionalized set of behaviors which includes people from all walks of life. Parents themselves reflect drinking behavior in the home and this in itself, might be conducive to factors which determine at an early age, who will become an alcohol abuser or alcoholic individual. Also, proportionately more people of high socio-economic level drink than those of low levels.

3. Lifestyle Factors. Drinking is very much a part of the lifestyle of Montanans. It is accepted as a thirst-quencher, as an adjunct to gracious living, as a social lubricant, as a food, as a medicine, as an intoxicant, and as a psychedelic agent. Drinking is normal behavior in most circles. Parental approval of drinking is correlated with the greater proportion of drinkers in younger age groups.[6]

4. Health Care Organization. Resources, facilities, and services are addressed in the Comprehensive Plan for Alcoholism and Drug Abuse.

As may be noted from the above Health Field Concept analysis, alcohol abuse, alcoholism, and their causes are still not well understood. They range from biochemical imbalance and heredity to psychosocial explanations. No single theory has proven adequate, for many factors contribute to the problem.

The effects of alcoholism are not fully understood. However, alcoholism is strongly associated with cirrhosis of the liver and cancer. In addition, there is growing evidence that it contributes to damaged fetuses and developmental disabilities of infants, and marked increase in heart failure.

The subject of alcoholism and health cannot be concluded without mentioning available statistics on the problem. In Montana, as elsewhere, realistic prevalence data on alcohol abuse does not exist. The statistics that are available indicate that alcohol abuse and alcoholism is indeed a major problem in the State.

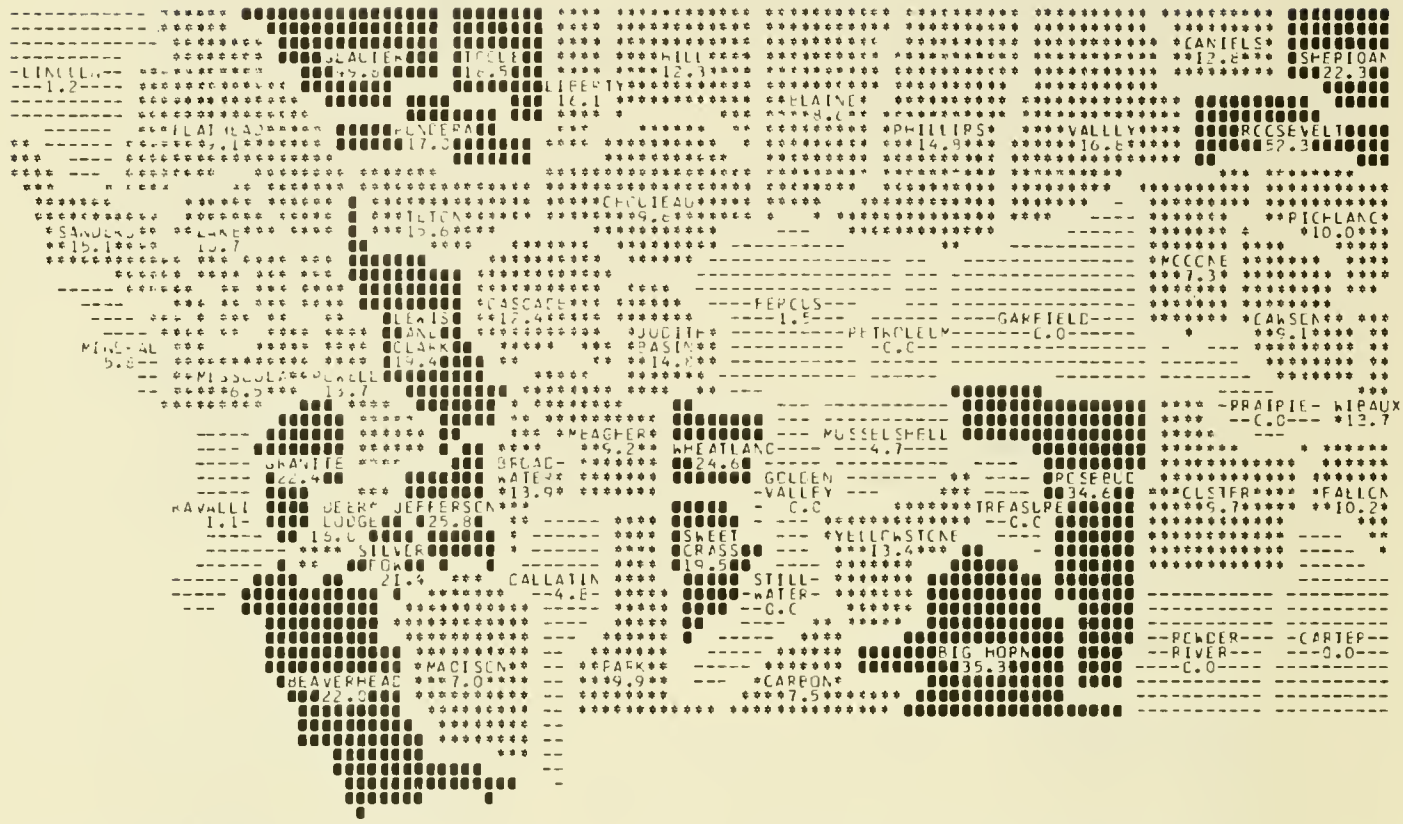
Statistical Analysis:

In Montana during 1977, accidents were the leading cause of death for ages 1 through 44 years. Eighty-three percent of these accidents involved motor vehicles, while the national average is approximately 50 percent. Thirty-nine percent of these motor vehicle accidents involved drinking. Of the 320 fatalities, 50 percent of the drivers killed, 23 percent of the passengers killed, and 31 percent of the pedestrians killed, had been drinking.[7] The accident health status problem will be more fully addressed in the Accident section of this Plan. Of the 100 reported deaths caused by cirrhosis of the liver in 1977, 69 were between the ages of 25 and 64 years. The average life years lost for this condition was 21.85 years.

As can be noted on the quartile map (Figure 3), those counties ranked in the high quartile are mostly rural counties with the exception of Lewis and Clark and Silver Bow. Four counties in the high quartile, Big Horn, Rosebud, Roosevelt, and Glacier, have Indian reservations located within their boundaries.

FIGURE 3

FIVE-YEAR DEATH RATES FOR CIRRHOSIS OF THE LIVER: MONTANA COUNTIES, 1973-1977
(BY PLACE OF RESIDENCE)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-

Another issue related to alcohol abuse and alcoholism is the significant economic burden it imposes on society. It is impossible to place a dollar figure on all adverse effects of alcohol--such as broken homes, disturbed children, and so on. A recent study, however, has estimated that the economic impact of alcohol abuse and alcoholism in the U.S. exceeds $40 billion. This estimate is based on six cost areas in which alcohol abuse and alcoholism are directly related. (Table 3.)

TABLE 3

ECONOMIC COSTS OF ALCOHOL ABUSE AND ALCOHOLISM
U.S., 1975

	Billions of Dollars
Lost Production	$ 19.64
Health Care	12.74
Motor Vehicle Accidents	5.14
Fire Losses	.43
Violent Crime	2.86
Social Programs	1.94
Total	$ 42.75

Source: U.S. DHEW, National Institute on Alcohol Abuse and Alcoholism, Alcohol and Health, December, 1977.

The Montana Highway Patrol Bureau estimated the economic loss in Montana as $169,600,000[9] during 1977. The Alcohol and Drug Abuse Division's budget is $1,102,093 for FY 1979--much of which is for social programs. (See Appendix VI for program descriptions in "Inventory of Programs of State Government").

Approximately 42 percent of Montana's juvenile and adult misdemeanor arrests were alcohol related as demonstrated in the following Figure. The offenses include riotous conduct, disturbing the peace, drunk, drunk driving, and possession of alcohol. Of these actual arrests, 5,861 were white, 6,156 Indian, 104 Mexican, and 71 Negro. Although it is a known fact that numberous serious crime offenses are alcohol related, data is not available for this breakdown.

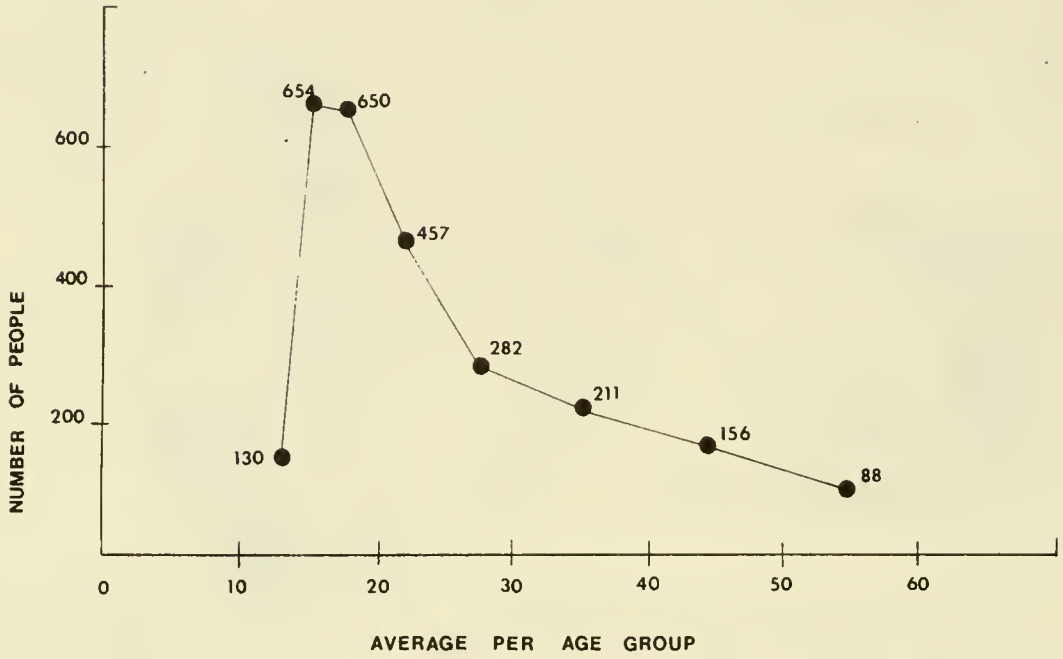
FIGURE 4

MONTANA

STATEWIDE JUVENILE AND ADULT

ALCOHOL RELATED MISDEMEANOR ARRESTS

(AVERAGED) 1977



SOURCE: Montana Board of Crime Control, Criminal Justice Data Center Crime Montana, Annual Report, July 1978

Alcohol abuse and alcoholism are recognized as major health problems in Montana. No battle against a public health problem can gain a significant victory if it attends only to the casualties. Appropriate treatment of persons who are abusing alcohol--the primary condition that may lead to alcoholism--can intercept the development of many cases of alcoholism. Yet much of the work in the field of alcoholism has been focused on treating late-stage victims of the disorder. Programs that are exclusively therapeutic or rehabilitative will not result in long-term conquest of the problem unless ways of preventing new cases of alcoholism are developed.

CONCLUSIONS

The two problems discussed have many common elements. They represent extreme means of coping. On the one hand, suicide is an immediate means of taking one's life, while alcoholism may take years to achieve the same end. They are, in large measure, exhibted by those whose development has been distorted by a negative psychosocial context. The extent to which these perceptions are distorted within the individual or in the social milieu is still open to debate.

However, it is clear that: 1) the mental health and alcohol service systems must reach out with prevention and support services; 2) prevention programs must be aimed both toward changing individual behavior and perception, and toward changing educational institutional structures where appropriate; 3) more coordination of efforts is needed among various agencies and organizations to decrease duplication, gaps and cost of services; and 4) that the responsibility for the mental health and health of the community nas no limits--all of us are both part of the problem and the solution.

GOALS, OBJECTIVES, RECOMMENDED ACTIONS

GOAL 4: TO IMPROVE THE LEVEL OF MENTAL HEALTH AND HEALTH AMONG MONTANANS.

GOAL LEVEL 4.A: TO REDUCE THE MORTALITY AND MORBIDITY WHICH RESULT FROM MENTAL ILLNESS AND ALCOHOLISM.

Rationale: Mental health and alcoholism are elusive concepts which include such a range of factors as to defy definition. However limited, we are reduced to using problem indicators to assess the level of mental health and alcoholism problems in Montana. We are not able to provide concrete data as to the number of Montanans not currently achieving a high level of mental health or health, nor are we able to adequately assess incidence and prevalence of the two negative factors.

Most statistics provided for such problems as alcohol and drug abuse are rough guesses, extrapolated through many formulas. Nevertheless, although the problem cannot be accurately measured, it must be addressed. There currently exist few prevention and health promotion programs. As in the health care system, "diagnosis and treatment" must be available, but if we are to realistically impact in any significant way on the health status of the population, we must be prepared to develop innovative prevention and promotion programs and to make suggestions as to beneficial changes in the environment required to produce higher levels of mental well-being in the community.

OBJECTIVE 4.A.1:

TO REDUCE THE 1977 SUICIDE MORTALITY RATE FROM 18.8 TO 15.0 BY 1984.

OBJECTIVE 4.A.2:

TO REDUCE THE INCIDENCE OF ALCOHOL ABUSE BY 3 PERCENT BY 1984.

RECOMMENDED ACTION 4.A.1-2.a:

Establish in at least two schools a model program for primary prevention.

1) SHPDA will work in cooperation with the Mental Health and Residential Services, Alcohol and Drug Abuse Divisions, and the Office of Public Instruction to support a primary prevention program.

2) Provide training program to teachers in pilot schools.

3) Demonstrate the prevention program in two schools.

4) Develop an evaluation component.

1. Target Groups

The target group is children and youth, ages 6 through 18.

2. Major Milestones

SHPDA will provide the HSA with a program description and request assistance in initiating project.

3. Locus of Responsibility

SHPDA, HSA, and the OPI should initiate contact between the two school systems, drug and alcohol programs, mental health centers, etc. The school system would be the administrative agency for the project.

4. Resource Requirements

Manpower:	SHPDA Staff	.05 FTE
	HSA Staff	.05 FTE

Projected Costs:

The costs of the project could be defrayed through all the involved agencies. One funding possibility is exploring grants for experimental projects through such agencies as the Montana Committee for the Humanities.

5. Anticipated Impact

The long-term impact of the program can only be determined through longitudinal studies. However, literature supports a considerable improvement in the quality of participation in schools of a significant number of students. Given the enormous costs of treatment, incarceration, and human loss, even minor successes of such a program justify its cost.

RECOMMENDED ACTION 4.A.1-2.b:

Establish a suicide crisis intervention statewide toll-free hotline.

1. Program Description

   A toll-free hotline for crisis intervention would provide accessible and available crisis intervention to all Montanans. The staff would be trained in basic concepts of intervention of suicidal behavior and would be trained to determine the most appropriate course of action; i.e., involvement with family and friends, referral to appropriate agency, or recommendation of hospitalization.

2. Target Groups

   All Montanans.

3. Major Milestones

   a. Formal coordination agreements between involved State agencies.

   b. Media utilization.

4. Locus of Responsibility

   Initial contact will be made through SHPDA. The Mental Health and Residential Services Division would have ultimate responsibility.

5. Resource Requirements

Manpower:	SHPDA Staff	.05 FTE
	HSA Staff	.10 FTE

   Source of Funds: General fund money--1981.

6. Anticipated Impact

   Although several major cities in Montana have Crisis Intervention Centers, they are not available or accessible statewide. The majority of suicide threats and attempts are made by individuals who either do not want to die or are ambivalent about taking their lives. In such instances, the communication of intent, if assistance is sought, can change the rate of suicide in the State.

RECOMMENDED ACTION 4.A.1-2.c:

Establish at least one "Optimum Growth" primary prevention model in the State.

1. Program Description

   The Optimum Growth Primary Prevention Program would provide parenting skills and other associated programs. Services would be provided through a Mental Health Center by Community-Family counselors and trained volunteers.

2. Target Groups

High school students and high-risk parents.

3. Major Milestones

a. Establish liaison between HSA, Mental Health and Residential Services, and Community Mental Health Centers.

b. Identify funding source.

c. Establish a program on a pilot basis.

4. Locus of Responsibility

SHPDA will initiate contact between Mental Health and Residential Services and a Community Mental Health Center.

A local Community Health Center should operate the project.

5. Resource Requirements

Manpower: SHPDA Staff .05 FTE

Source of funds: Mental Health Board; local sources; National Institute on Mental Health.

6. Anticipated Impact

This program could reduce child abuse and onset of mental illness and/or emotional disorder. However, specific impact cannot be reasonably projected.

RECOMMENDED ACTION 4.A.1-2.d:

Establish death and dying therapy groups in the Community Mental Health Centers.

1. Program Description

This program would alleviate the long-lasting distress and guilt of significant others caused by the death of a family member or friend from suicide, accident, or other violent deaths.

2. Target Groups

Family members, peers, colleagues of suicide and other violent death victims.

3. Major Milestones

a. Establish liaison between HSA, Mental Health and Residential Services, and the Community Mental Health Centers.

b. Identify funding source.

c. Establish a program on a pilot basis.

4. Locus of Responsibility

SHPDA will initiate contact between Mental Health and Residential Services and a Community Mental Health Center.

A local Community Health Center should operate the project.

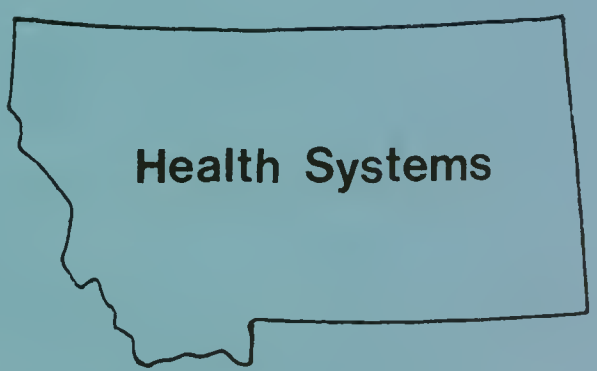
5. Resource Requirements

Manpower: SHPDA Staff .05 FTE

Source of funds: Mental Health Boards, local funding, National Institute of Mental Health.

6. Anticipated Impact

This program should reduce guilt and depression of family members and friends of suicide victims. It would also add to the understanding of the dynamics of suicide and other violent deaths.


Health Systems

HEALTH SYSTEM INTRODUCTION

THE HEALTH SYSTEM FRAMEWORK

The health system includes those services, resources, financing mechanisms, and programs which can be used to positively affect the level of health in the population. Since the promotion of health or the prevention of ill health often requires consideration of lifestyle and environmental factors, the definition of the health system has been expanded to include components which are normally thought of as outside the medical care model, such as health education services. For the purposes of planning and analysis, the Health Systems Taxonomy has been used as the conceptual framework for viewing the Montana Health Systems Plan. This includes seven major service categories which can be further delineated into subservice categories.

Major Service Categories:

Community Health Promotion and Protection Services

Those services directed toward informing, educating and motivating the public to adopt personal lifestyles and nutritional practices which will promote optimal health, avoid health risks, and make appropriate use of health care services in the community.

Prevention and Detection Services

Services delivered to individuals in order to promote optimum physical and mental well-being, including protection from the development of disease and ill-health, or to identify disease or ill-health at the presymptomatic or unrecognized and symptomatic stage to permit early intervention.

Diagnosis and Treatment Services

Services for evaluating the health status of individuals and identifying and alleviating disease and ill-health or the symptoms thereof.

Habilitation and Rehabilitation Services

Services to restore the ill or disabled individual, or to assist the developmentally or mentally disabled individual, to achieve the fullest physical, mental, social, vocational and economic usefulness of which he is capable.

Maintenance Services

Services provided to individuals with chronic physical and/or mental ill-health conditions in order to prevent deterioration in those conditions, as well as services provided to individuals in need of assistance in activities of daily living. The purpose of such services is to enable an individual to participate in the community to the fullest degree to which that individual is capable and/or maintain an existing level of function.

Personal Health Care Support Services

Services which do not involve direct medical care, but which assist in the prevention, diagnosis and treatment of diseases or ill-health conditions, or in the habilitation, rehabilitation or maintenance of ill or disabled individuals.

Health System Enabling Services

Organized activities designed to influence the means by which, and conditions under which, health systems services are delivered. This includes health planning, resources development, financing, regulation and research.

This framework allows for an analysis of services within alternative settings according to the needs of a population, and for an identification of interrelationships between components of the system. The major settings in which these services can be delivered are as follows.

Major Setting Categories:

Community Setting

Settings in which community health promotion and health system enabling services, rather than personal care services or patient-related support services are provided.

Home Setting

Providing health care services in the patient's residence with the result that the patient does not travel nor be admitted to long-term care services.

Mobile Setting

Providing health care services at temporary locations selected for their convenience to a geographically selected target population using a movable vehicle or facility or a provider which provides health care services during transportation of patients.

Ambulatory Setting

Providing health care services to patients who travel to the provider to receive services. An ambulatory setting has no regular provision for patients to stay overnight.

Short-Stay Setting

Providing health care services to patients who stay overnight in the institution, fifty percent or more of whom return to their normal place of residence within less than thirty days of entering the institution.

Long-Stay Setting

Providing health care services to patients who stay overnight in the institution, fifty percent or more of whom remain in the institution thirty days or longer. A long-stay setting may be the usual place of residence of some or all of its patients.

Free-Standing Support System

A location where health services are provided which support the delivery of personal health care services without providing direct patient care, and which is not a component of an organization which delivers personal health services in another setting.

Finally, these health services are analyzed in light of the following six performance characteristics.

Performance Characteristics:

Cost

The total economic value of resources required to provide services including all financing expenditures, especially expenditures for capital and operating requirements.

Availability

A measure of the appropriate supply and mix of health services and the capacity of resources for providing care.

Accessibility

A measure of the degree to which the system inhibits or facilitates the ability of an individual or group to gain entry and receive appropriate services, including geographic, architectural, transportation, social, time and financial considerations.

Continuity

A measure of the degree of effective linkages and coordination in providing a succession of services over time regardless of whether care is provided in one setting or multiple settings.

Acceptability

An individual's (or group's) overall assessment of medical care available to him/her in terms of such factors as cost, quality, outcome, convenience of care and provider attitudes.

Quality

A measure of the degree to which health services delivered meet established professional standards and judgements of value to the consumer. Quality is frequently described as having three dimensions:

Quality of input resources (i.e., certification and/or training of providers - both manpower and facility factors); quality of the process of service delivery (i.e., the use of appropriate procedures for a given condition); and quality of outcome of service use (actual improvement in condition or reduction of harmful effects).

The analysis of health services according to these characteristics serves at least two major purposes:

1. It provides for an assessment of the appropriate configuration of services based on the health needs of a population. These services are then analyzed to determine not only their general availability in the health care delivery system, but also their accessibility to the population or to sub-groups within that population.

2. It is a means of assessing the performance of the health system; that is, whether services are being provided efficiently, in a cost effective manner, and within certain standards of quality.

The degree to which the health systems of the Montana Health Systems Plan have been assessed in this document has been largely dependent upon the validity and availability of the Health Systems Agency's components, data, time constraints, and limitations which relate to the "state-of-the-art". Often the analyses of the problem areas raised questions requiring further study, much of it in the area of developing methodologies for determining population-based service need. It is likely that many of these service areas will be reanalyzed in future plans and in greater detail.

TRENDS IN THE HEALTH CARE SYSTEM

At the turn of the century, communicable and infectious diseases were the leading causes of death due to lack of vaccines and environmental and sanitary conditions. In general, over the century, communicable and infectious disease mortality rates have declined dramatically. At the same time, chronic degenerative disease deaths - heart disease, cancer, stroke - have increased.[1]

Medicine was a rugged profession a hundred years ago when the physician had to rely on ingenuity, persuasion, luck and improvisation to overcome the great obstacles he faced. Heart disease could be treated with digitalis, malaria with quinine, and pain with opium. The stethoscope and the reflex hammer were the major available instruments. Just what would be thought of the CAT scanner that can locate tiny areas of damaged tissue in inaccessible organs like the pancreas and brain and can display those on a TV screen? How about use of a fiberoptic tube to look directly at an ulcer in the patient's stomach, search for a bleeding site, or examine a small lung tumor?[2]

In the last 75 years, the state-of-the-art of medicine has progressed at an ever-accelerating rate; and revolutionary changes in diagnosis and treatment of disease have taken place.

Many incidences of diseases have been virtually eliminated - typhoid, smallpox, malaria, polio, and tuberculosis. Vaccines were discovered resulting in mass immunizations. Environmental measures were undertaken to improve healthful living conditions - housing and sanitary conditions have been vastly improved.

The annual death rate in the U.S. is now about 7 per 1,000 population; less than half the rate at the beginning of the century. In 1900, the average life expectancy in the U.S. for women was about 51 years and 48 years for men. Now it is 75 years for women and 68 years for men.[3]

The present infant mortality rate - about 18 deaths under one year per 1,000 liveborn - is less than one fifth of what it was 60 years ago. During this time, life expectancy for an infant has increased by approximately 22 years.[4]

Hospitals

Of all present developments in the health care field, the emergence of the modern hospital has been the most dramatic

and the most impressive example of the institutionalization of medical care. Hospitals are, by and large, a vast complex of expensive buildings, specialized equipment and interdisciplinary skills brought together for inpatient and outpatient care, research, professional and general health education.

In Montana, hospitals were distributed in almost every community, depending primarily on the availability of local funds. In 1944, the American Hospital Association established a commission to study the nation's hospital needs. They concluded that more general hospitals were needed and should be built in areas of greatest need. The Commission's report has a strong influence on the development of Federal legislation authorizing a nationwide hospital survey and construction program.[5]

In 1946, the Hill-Burton Act was enacted in response to the perceived shortage of acute care beds. Through the aid of this funding mechanism, the number of beds in non-federal, short-term hospitals rose 80 percent between 1950 and 1973 throughout the United States. In Montana alone, the increase in beds went from 2,912 to 3,368; a 14 percent increase between the years 1948 and 1979. In the mid 60's, Medicare and Medicaid programs were introduced. Private health insurance and the ability of the private citizen to afford it, expanded through employment benefits until, between private insurance and government, approximately 90 percent of the population is now covered by some kind of health insurance.[6]

More research has been reported since 1960 than in the previous sixty years. Areas studied were: staff organization, administration, and functioning of hospitals; design of hospital nursing units; hospital information and communication systems; staff interrelationships, morale, and role perception; demand for and use of hospital facilities; planning for hospitals; and hospital mergers and shared services. Unfortunately, the results of many of these studies have not been well integrated.[7]

The modern hospital is gradually becoming a community health center, whether as a part of a multi-institutional unit or a single autonomous institution. It is the one institution with the potential for providing or assuming responsibility for the provision of the full-range of comprehensive health services - prevention, treatment, rehabilitation and aftercare.[8]

Reflecting this enlarged role, institutions are now the major consumer of the nation's health care dollar. In 1950, hospital operating expenses accounted for 30 percent of the health dollar. By 1976, it had risen to well over 40 percent. This increase has been attributed to higher quality, new technology, specialized services, and inflation. It reflects such specific factors as rising labor costs; the increased employment of more highly skilled personnel, including physicians; the rise in the cost of

construction, including the borrowing of money, and supplies of all types; the increasing use of computers and other expensive equipment; the increase in the number and sophistication of diagnostic tests and therapeutic procedures; the changing mix of the patient population with a marked trend toward more serious illness; the increasing involvement of the community hospical in education and community health services and planning; the persistence of too many economically inefficient small units; and the rising costs of administrative overhead, including such relatively new areas as public relations, personnel, and malpractice insurance.[9]

Public Health

With passage of the Federal Social Security Act in 1935, establishment of local health departments gained considerable momentum. With a population that was becoming increasingly more affluent, literate, and vocal, government had the funds and the inclination to respond to their needs - and it did. The device of Federal grants-in-aids, initiated in 1935, has served as a strong stimulus to expansion and improvement of State and local health services. Programs were developed to vaccinate the population against communicable disease and, as the population moved into the cities, access to a physician became increasingly available.[10]

Government Research and Grants-in-Aids

Government has much to do with the expansion and emphasis on high cost tertiary services through funding research and grants-in-aids mechanisms. Research funds began to pour into private agencies and medical centers, promoting new techniques for solving health problems and aiding in the development of more specialized manpower to implement these innovations. These techniques included heart transplants, advances in radiation therapy for cancer treatment, renal dialysis, and organ transplants.[11]

Medical students, in mass numbers, began to seek and obtain specialized training. Although we were graduating increasing numbers of manpower, there began to develop both a specialty and geographic maldistribution of physician services as they located in urban areas to set up practices. Many people were left without convenient access to primary care.[12]

Health Expenditures

Per capita expenditures for health care services increase with age. In FY 1976, $1,521 was spent for each person 65 and over, $547 for those aged 19-64, and $249 for those under 19. The health expenditures for older people were publicly subsidized

to a greater extent than for the younger population. In FY 1976, it varied from 68% for the elderly to 26% for people under 19.[13]

Expenditures for nursing home care have grown at a rate of 21% a year since enactment of Medicare and Medicaid, in contrast to a 16% growth rate during the previous 10 years. Per capita public expenditures increased from $48 in 1965, just prior to implementation of the Medicare and Medicaid programs, to $269 in 1976.[14]

Third-party Payors

In FY 1976, public program expenditures totaled $53.3 billion. Medicare and Medicaid accounted for 62% of this total.[15]

Nearly 60% of public program expenditures, $30.4 billion, were devoted to hospital care, with the largest amounts being paid by Medicare.[16]

The systems of Medicare and Medicaid are beginning to show signs of wear. In the last few years, states have fallen under difficult times in attempting to deal with rising Medicaid costs - Montana included.

During the mid and late 1930's, a number of local hospital service plans were formed. Some of these were contracts of individual hospitals with designated groups of beneficiaries. By paying a predetermined annual fee to the hospital, members of the covered group were entitled to care, as needed, in that hospital. In other communities a hospital council or association organized the service plan and subscribers were eligible for care from any of the member hospitals. The AHA organized the Hospital Service Plan Commission in 1938 which expanded service coverage that individual local service plans could not offer. This was the antecedent of the Blue Cross Association, which in 1957, organized as a separate entity.[17] Private insurance paid for about one-fourth of all health care expenses in FY 1976. The bulk (62%) was for hospital care and 30% for physician's services. Seventy-eight percent of the nation's civilian population were protected by private health insurance against some portion of the cost of hospital care at the end of 1974. The proportion of the public having private insurance coverage in 1974 increased with income, rising from 37% for the lowest income group (less than $3,000) to more than 90% in families with incomes of $15,000 or more.[18]

One of the conditions which enabled orginary citizens to afford better care was medical insurance, for which, as has been pointed out, a substantial proportion of the population had coverage in one form or another.

Regulatory Agencies

All of these components have led to increasing regulation at the Federal, State, regional, and local levels. In order to justify expenditures, physicians and hospital administrators have been burdened with paperwork, guidelines, and regulations. These regulatory agencies, then, are in themselves contributing to the direct and indirect cost of health care.[19]

For these reasons, and more, government, the health care community and industry have taken a number of actions in an attempt to combat some of these problems. They have encouraged the development of Health Maintenance Organizations, Ambulatory Surgical Centers, and Neighborhood Health Centers to help change the trend of emphasis from tertiary and inpatient services to primary and ambulatory care services.[20] In order to plan, coordinate, and make recommendations for the most efficient allocation of resources, P.L. 93-641 has set up State and area-wide planning agencies with Boards made up of local consumers, public elected officials, and providers. There are public and private individuals and groups willing to go even further. Proposals are being initiated at the Federal level for Rate Regulation, National Health Insurance, Catastrophic Insurance, and other proposals which would have a major impact on the financing and delivery of health care.[21]

In March, 1978, the Statewide Health Coordinating Council established as one of its priorities an ongoing program for addressing cost containment activities in Montana. Many cost containment proposals are reflected throughout this document.

RELATIONSHIP TO HEALTH STATUS

Perhaps an important question to ask ourselves is where should the emphasis on health lie? Obviously, we cannot ignore the problems that have emerged from the health care delivery system. There is still much to be done in terms of research, multi-institutional cooperation, and more efficient use of resources, but at this point a look at the current emphasis compared with the needs determined by the major health status problems of the population would be helpful. When analyzed in terms of primary and secondary causes and effects of the leading causes of death, such as heart disease, cancer, cerebrovascular disease, infant mortality, accidents, and suicide, we are discovering more and more that too little emphasis has been placed on prevention, environmental factors, lifestyle, and self-responsibility as major influences on cost containment and improved health status.

These areas affecting health have received too little attention in the past. The problem is that this change in emphasis can only be achieved through reallocation of existing, but limited, resources. This will no doubt be a relatively slow, incremental process. However, unless we shift our health policy towards these areas, we will see little or no change in our present disease patterns. Perhaps our greatest contribution to the citizens of Montana can be through an analysis and discovery of innovative approaches to affecting health through these means. This has been, in addition to cost containment, the other major thrust of the goals, objectives, and recommended actions contained in the State Health Plan.

The potential to stress "wellness" through preventive programs which could affect large segments of the population exists and this may be where the true challenge lies in the years to come.

PRIORITY HEALTH SYSTEM AREAS OF CONCERN

The remainder of this section relates to the priority health system areas selected for analysis. In addition, a listing of the Health Systems Agency's goals, objectives and recommended actions has been included. This listing is intended to provide an overview of health problem areas which have been addressed by the HSA.

Like the Health Status section, for each of the health system problem areas selected, there is a summary analysis and the related goals, objectives, and recommended actions. As may have been previously noted by the reader, those health system recommended actions which were pertinent to the achievement of specific health status objectives, were also listed in the Health Status section.

The priority problem areas addressed in the first State Health Plan are arranged within the framework of the health systems taxonomy as follows:

Community Health Promotion and Protection Services

...Health Education Services

Prevention and Detection Services

...Preventive Dental Services

...Food Services

Diagnosis and Treatment Services

...Maternal and Infant Services

Maintenance Services

...Home Health Care Services

Health System Enabling Services

...Health Care Expenditures

For the reader's information, an Inventory of State and Federally sponsored health and health-related programs can be found in Appendix VI. Some of this information has been integrated into the systems analyses.

COMMUNITY HEALTH PROMOTION AND PROTECTION SERVICES

Community Health Promotion and Protection Services contain those services whose purpose is the improvement of personal health behavior or of environmental factors which may affect health. Some of these include:

...Health Education Services

...Environmental Quality Management

...Food and Consumer Safety

...Occupational Health and Safety

...Radiation Safety

Most of these services are provided by governmental agencies at differing levels, particularly those concerned with environmental protection and safety. Personal behavior patterns, or social, economic, and physical environmental factors are being linked to health status. The SHCC is placing greater emphasis on effecting positive changes in health promotion and prevention services. Unfortunately, behavioral patterns and environmental factors are difficult to change; so too will intervention strategies in these areas provide little visible results for years to come. Nevertheless, recognition of their potential is a first step, and it may be that mental and physical health benefits will be gathered in ways that we currently cannot foresee.

For the first State Health Plan, Health Education Services was chosen as a priority area for analysis and for the development of statewide goals and objectives.

HEALTH EDUCATION SERVICES

INTRODUCTION

Today's major health problems include the high costs of health care, the inaccessibility of such care, the prevalence of chronic illnesses, and a lower than desired health status for the U.S. population. It becomes apparent to more people that at least a partial solution to these problems is a knowledgeable health care consumer - a consumer who, first of all, does all he or she can to prevent illness, as well as one who knows how to properly use and assess available health services.

With this solution in mind, the Statewide Health Coordinating Council (SHCC) identified "the lack of health education in the areas of prevention and utilization of health services" as a priority concern for policy analysis.

This report will examine the SHCC's concern to determine whether such education is truly lacking, and if so why. It will examine policies which are contributing to or detracting from the consumer's health knowledge as well as his ability to use this knowledge and it will suggest some policy options which might further the achievement of health education goals.

The policy aspects of health education are important for several reasons. First, and perhaps most obvious, is that State government provides a number of health education services; the funding and support of these services depends on a policy commitment to health education as a worthwhile venture. Second, State policies are important to health education in that most formal education programs are State funded and State supervised. As a part of a person's overall education, health education comes under the purview of the State educational system. Third, the importance of policies is that they determine the general environment in which a person must try to learn and live out his or her beliefs, attitudes and behaviors. If this environment is not conducive to healthful behaviors, health education is a futile exercise.

However, before beginning the actual analysis of the current state of health education in Montana it is necessary to specify what health education can and cannot do - what it is and is not.

Definitions:

Health education has been defined in many ways, but perhaps one of the most significant definitions is that of the 1973 President's Committee of Health Education which states that health education "bridges the gap between health information and health practices." In this definition, two important points are made. The first point is that health education and health information are not synonymous. Health information is only an exchange of facts while health education converts those facts to knowledge, values, beliefs and eventually behavior. The second point is that health education encourages the adaptation of health practices; it helps people to voluntarily change their behaviors in healthful directions.

The two primary categories of health education are professional health education and consumer health education.

Professional health education is that highly intensive education and training provided to people who earn their living helping others attain, maintain or regain health. Their expertise as providers of health care requires not only their initial education but also continuing education to keep them up-to-date and proficient in their field of interest.

Consumer health education is directed at the recipients of health care, the users or buyers of health services.

The taxonomy of consumer health education services outlined in Figure 1 is helpful in further defining the term. Included in the taxonomy are four main classes of consumer health education; system education, prevention or wellness education, patient education, and self-help education.

FIGURE 1
TAXONOMY OF CONSUMER HEALTH EDUCATION

PREVENTION EDUCATION (Wellness Education)

Lifestyle Factors

- Alcohol & Drugs
- Defensive Driving
- Environmental Health
- Hygiene
- Mental Health
- Nutrition
- Safety
- Smoking Cessation

Preventive Medicine

- Immunizations
- Birth Control
- Communicable Disease Control
- Fluoridation

SELF-HELP EDUCATION

Prevention

- Lifestyle Factors
- Preventive Medicine

Self-Diagnosis

- Monitoring Body Symptoms
- Early Detection of Illness

Self-Treatment

- First-Aid/CPR
- Use of non-prescription Drugs
- Checking with Professionals

Professional Medical Care

- When to Seek
- How to Use
- How to Participate

PATIENT EDUCATION

Screening for Early Detection of Illness

Chronic Illnesses

- Heart Disease
- Hypertension
- Cancer
- Diabetes

Rehabilitation Activities

- Handicapped Persons

Prevention Activities

(see above)

System Education

SYSTEM EDUCATION

Accessing the System

Assuring Quality Medical Care

Cost Containment

Assessing and Participating in Health Policy-Making

Directed at all segments of the population, system education's purposes are to teach people how and where to enter the health care system (according to the individual's health care needs), how to assess the quality of the care they receive, how to contain health care costs or at least how to avoid unnecessary costs, and how to assess and participate in health policy decisions.

Prevention education is directed primarily at well people. Its objectives are to foster understanding of lifestyle factors which can contribute to or detract from health, to motivate people to adopt healthy lifestyles, and to motivate people to practice preventive health measures (such as birth control, dental flossing, immunizations) which reduce the risk of undesirable health conditions.

People with existing illness or conditions are the target of patient education. Such education:

1. teaches people the importance of early detection and treatment of illnesses;

2. motivates people to obtain diagnostic and treatment services;

3. fosters a patient's understanding of his or her health condition as well as the necessary medical measures for diagnosis and treatment; and

4. motivates the patient to participate in his or her own health care or rehabilitation regimen.

Self-help education teaches consumers how to be health care providers to themselves. They practice preventive techniques, diagnose their own illnesses and conditions, treat their minor health problems, and refer themselves to the appropriate professional provider when necessary. In short, self-help education combines system, prevention and patient education in a concentrated course for people who are motivated to be self-reliant and primarily responsible for their own health.

The methods for delivering health education are varied, but include the mass media (television, radio and newspaper), special circulation media (newsletters, pamphlets, brochures, films and tapes), special conferences, small group discussions, political action groups, individual or group counseling, classroom lectures (with or without evaluative follow-up), telephone information and referral, libraries, incentive programs, and combinations of the just-mentioned methods.

It can be delivered in clinical settings, schools, occupational settings or community settings. It can be directed at the general public, special interest groups or at-risk groups.

Health education providers include specially-trained health educators, school teachers, doctors, nurses, dentists, optometrists, technologists, or other health professionals who are part of an interdiciplinary education team.

Lawrence W. Green, one of the nation's leading health education experts, defines health education in terms of the type of goal it is attempting to achieve. He describes three types of goals and the factors involved in the achievement of these goals. Table 1 is a summary of his definition.

TABLE I

Types of Health Education Goals

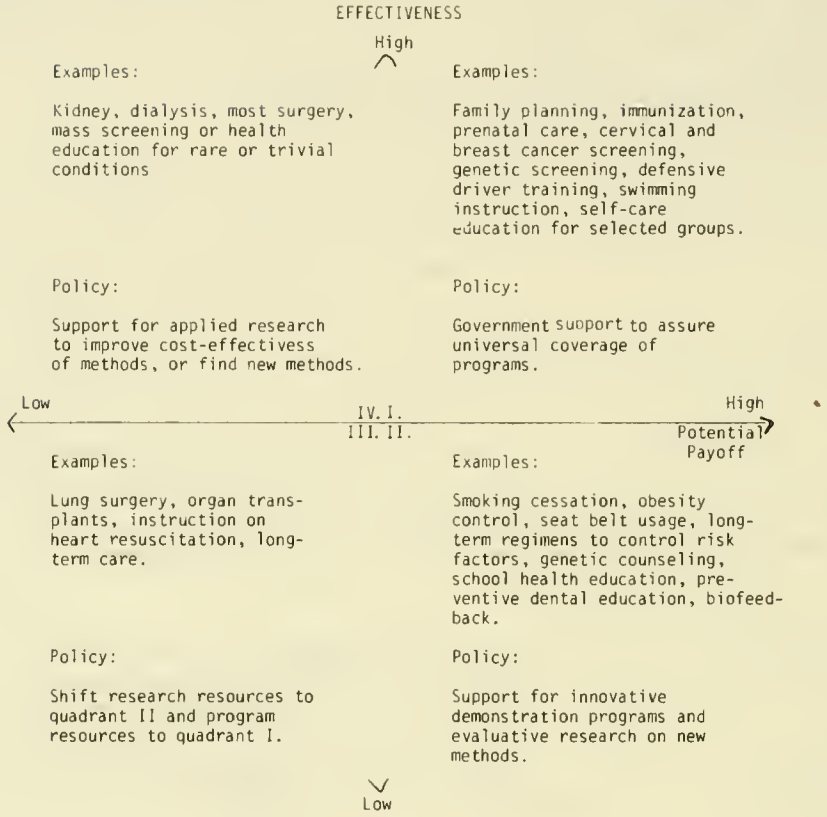
Immediate Goal (Changes in Predisposing, Enabling & Reinforcing Factors			Intermediate Goals (Behavior Changes)					Ultimate Goals (Changes in Health Status)
Predisposing Factors	Enabling Factors	Reinforcing Factors	Frequency	Persistence	Earliness	Quality	Range	(Mortality, Morbidity, Fertility and Disability)
(Knowledge, Attitudes, Beliefs, Norms,	(Availability, and Accessibility of Services, Referral Mechanisms, Payment Mechanisms, Clinic Hours, etc.)	(Attitudes and Actions of Providers, Rewards and Punishments of Teachers and Parents, Employer Response)	(Establish a Pattern of Regular Behavior)	(Behavior to be Continued over a Long Period of Time)	(Reduce Delay in Adopting and Acting on a Behavior)	(Improve Appropriateness of Health Action)	(Adopt a Range of Different Practices)	
Most Effective Types of Health Education Programs								
Communication Methods Directed at Consumers and General Public	Community Organization	Staff Development	Programs that Provide Regular Cues at Appropriate Intervals	Programs that Provide Social Supports	Social Supports Aimed at Reinforcing Factors for Medical Treatment/ Less Intensive, Mass Campaign for Preventive Actions	Community Organization, Mass Media Campaigns	More Intensive Methods such as Home Visits, Individualized Counseling, etc.	Too Complex to Determine Educational Methods--Must Look at Behavior Change Required to Achieve Health Status Changes

Green also has arrived at a classification of health education programs according to their known effectiveness and their cost benefit ratios, as shown in Figure 2.

FIGURE 2

GREEN'S COST-EFFECTIVENESS TAXONOMY OF

HEALTH EDUCATION PROGRAMS


EFFECTIVENESS
High
Examples:
Kidney, dialysis, most surgery, mass screening or health education for rare or trivial conditions
Policy:
Support for applied research to improve cost-effectivess of methods, or find new methods.
Examples:
Family planning, immunization, prenatal care, cervical and breast cancer screening, genetic screening, defensive driver training, swimming instruction, self-care education for selected groups.
Policy:
Government support to assure universal coverage of programs.
Low
IV. I.
III. II.
High
Potential Payoff
Examples:
Lung surgery, organ transplants, instruction on heart resuscitation, long-term care.
Policy:
Shift research resources to quadrant II and program resources to quadrant I.
Examples:
Smoking cessation, obesity control, seat belt usage, long-term regimens to control risk factors, genetic counseling, school health education, preventive dental education, biofeedback.
Policy:
Support for innovative demonstration programs and evaluative research on new methods.
Low

Criteria

Health education policies and programs should be evaluated and supported on the basis of six characteristics: availability, accessibility, acceptability, cost-effectiveness, continuity and quality.

More specifically:

...General health information (including local health resource directories and emergency first-aid procedures) should be available to all people on a continual basis.

...General health education should be available as an integral part of a person's overall education.

...The availability of more specific health information and health education services should be determined by the needs of the population. Disease-specific education should be available to at-risk or key target groups.

...Individuals seeking health education or health information services should be able to easily identify, locate and access agencies providing such services.

...Health education should be available in a variety of settings, including schools, patient settings, community settings, and occupational settings.

...Health education and health information services should be coordinated with other health education and information services as well as with other health care services to provide for the total needs of the individual and to minimize duplication of services.

...Interdisciplinary educational approaches should be favored over more limited approaches.

...Personnel who are members of an interdisciplinary education team should have training in health education methods or should have available the consultation services of a trained health educator.

...Health education programs should choose their educational methods according to the type of change desired.

...Behavioral changes should be the priority criteria of health education impact, since changes in attitudes, knowledge and beliefs do not actually improve health and changes in actual health status are too difficult and long-term to measure.

...Health education programs should be cost-effective.

...Health policies should be consistent with health education goals.

...Health education programs should take into account varying levels of funding. First, ample funding is needed to develop programs which will aid in the development of new attitudes and behaviors. Studies have shown that the rate of behavioral change increases proportionately to the rate of spending until the saturation level is obtained at which point increased spending has little or no effect on behavior. Funding is then needed to reinforce learned behavioral change.

Current Situation:

As a part of this policy analysis, a survey of State government health education programs was done to determine whether health education services for consumers are lacking in the State, and whether the policies related to health enhance or hinder health education goals.

Health Systems Taxonomy Analysis:

Availability

In some says, health education services are available. But a closer look reveals gaps in services and suggests that existing programs do not meet previously mentioned characteristics. (See Appendix II for health education services provided by State agencies).

General health information (including local health resources directories and first-aid procedures) is not uniformly available to all segments of the population. Information and referral services are available to the aged, low-income and handicapped persons through the Aging Services Bureau and the Social Services Bureau. The State Health Plan developed by the Bureau of Health Planning and Resource Development contains information on a variety of State and private health programs. (See Appendix VI).

The Department of Health and Environmental Sciences has developed a "Handbook for Local Health Departments" which lists the programs and contact persons in the Department.

However, resources are not easily identifiable and accessible for the general public.

The Emergency Medical Services Bureau (EMS) instituted a statewide toll-free telephone number (1-800-525-5042) for poisoning emergencies which is being widely advertised. In addition, the EMS Bureau is attempting to establish a statewide emergency telephone number, 911, which would be easily identifiable to all persons. Although this number is being used in several areas in Montana, its full implementation is a long-range goal. In the meantime, local emergency councils, in cooperation with the telephone companies, are distributing telephone stickers with emergency numbers on them.

School Health Education

School accreditation standards established by the State Board of Public Instruction specify that health and physical education is to be a part of the overall education of Montana's

students. Specifically, the standards state that high school students shall earn one of the required 16 units of credit in the area of health and physical education. A unit is 225 minutes per week, but in the case of health and physical education, this time is to be adjusted so that the unit is earned over a two-year period. Junior high and grade schools are required to offer health and physical education in all grades. The suggested time allocations for health education are 4.5 percent of total time in grades 1 through 3 and 5 percent for grades 4 through 8. In addition, grades 1 through 3 are advised to devote 8 percent of their time to physical education with grades 4 through 8 devoting 10 percent.

A health and physical education consultant within the Office of Public Instruction provides assistance to schools in this area. However, health education curricula and emphasis are not uniform from one school district to another.

Specialized Health Education

The availability of more specific health information and health education services is determined largely by the priorities and funding of individual programs in State government and, to some extent, by legal mandates. Programs mandated or suggested by law include venereal disease prevention and control, prevention of consumer product accidents and food-borne diseases, appropriate use of dangerous drugs, fire prevention, occupational safety and health, mental health, prevention of alcohol and drug abuse, and highway safety.

In addition, health-related agencies acting according to federal guidelines, or on their own, offer education or information on maternal and child health, family planning, birth control, nutrition, parenting, health system utilization, immunizations, preventive and remedial dental health, emergency medical services, environmental health and hypertension.

Refer to the Table in Appendix II of the Program Summary for target groups for these programs. They range from the general public to low-income mothers, Kalispell school children and a variety of other specific groups. However, the tendency is to gear programs at the general public, indicating they are more informational than educational.

Health-related agencies in State government do provide education programs in a variety of settings, including schools, clinics, communities and places of work.

Accessibility

As mentioned previously, many of the available information

resources are difficult to identify, locate and, therefore, access.

This applies also to the more specific educational programs. Indeed, the problem may be greater with them because they tend to become buried in the vast network of State programs and private human services programs.

Acceptability

Health education services cannot succeed if they are not acceptable to their consumers. Although the acceptability of a particular education program is difficult to assess, it seems that the fairly high participation and interest in present programs incidate their general acceptability.

Continuity

A lack of continuity of services is the largest problem in the State's health education system.

One of the major aspects of this lack of continuity is poor coordination of services. Four means of service coordination presently exist.

The first, and most operational, is for programs to initiate contact and coordination with each other in a sort of hit-and miss approach.

The second is through the Public Information Unit of the Department of Health and Environmental Sciences. Staffed by one full-time professional, this office is resporsible for coordinating the department's media contacts, writing news releases, developing promotional campaigns and publishing a department newsletter. However, operationally, many information efforts are not coordinated with this office.

The third is a Department of Health and Environmental Sciences/ Office of Public Instruction Joint Staff Committee on School Health. Although this committee has been inactive for the past couple of years, it is becoming active again and should provide an avenue for coordinating school health education efforts.

The fourth education effort is described in a June 30, 1978, memo from the Department of Health & Environmental Sciences Director to the Division Administrators and Bureau Chiefs within the Department. It reads, in part:

> "The focal point for coordination of planning, implementation and evaluation of health education activity in this department will be the Health Education Bureau. The Chief of that Bureau is to be the coordinator for the department's efforts in health education and is to be kept informed regarding health education activities within your programs. He is available for consultation and assistance to all departmental staff, local health departments and others interested in health education...I wish to again state that this department will have its efforts in health education coordinated and complementary to goals and objectives of all programs. We are committed to the need for health education and know that it can and will work toward program success."

The Bureau of Health Education is made up of two staff members: a health educator and a film librarian. One of the staff members is also referred to as the Planning and Evaluation Unit Supervisor within the Centralized Services Division of the Department. Approximately one-third of his total time is spent on health education coordination and consultation. Again, many activities are not coordinated through him, despite the Director's memo.

On paper, and in actual day-to-day activities, it is apparent that these coordinative methods do not accomplish the job. A majority of those agencies answering the SHPDA's health education survey stated that more coordination is needed between programs.

Much of the lack of coordination of health education programs in State government stems from past disagreements within the Department of Health and Environmental Sciences. Several factions, representing varying health education theories and priorities, have competed for the health education leadership and monies within the Department. To some extent this competition still exists today, although the situation might better be described as a stand-off in which communication between the factions is minimal.

Another aspect of the lack of continuity in programs is that they are often short-term, one-time shots at a particular target population. Depending on the type of desired behavior change, periodic reinforcement of the learned behavior is necessary. Lack of funding and lack of continuity in program direction often prohibit this.

In one respect, the present decentralized system of health education delivery enhances continuity of services by integrating health education and health information service with each program's overall health service delivery. This continuity is further enhanced by an interdisciplinary approach to health education, in which sanitarians, nurses, community organizers, physicians, health educators, and otner health professionals all participate in the delivery of health education services.

Quality

To maintain quality in health education delivery, all members of all interdisciplinary education team should have training in health education theory and methods or should have available the consultation services of a health educator.

One of the problems within the health-related agencies in State government is a lack of understanding of health education. Although the State government has a minimum number of persons trained as health educators, many programs go without the services of a health educator, even on a consultative basis.

The State Merit System classifications for health educators are as follows:

The State Merit System classifications for health educators include those with Bachelor's Degrees and Master's Degrees.

Public Health Educators I and II require knowledge, skills, and abilities typically acquired through a combination of education and experience equivalent to a Bachelor's Degree in public health education, community health education, health and physical education, or general education with an option or emphasis in community or school health. A Public Health Educator II position requires two years experience.

Public Health Education Specialists I and II qualifications are the same other than years of experience. Requirements are knowledge, skills, and abilities typically acquired through a combination of education and experience equivalent to a Master's Degree from a graduate program in public health or community health education accredited by the American Public Health Association.

The qualification standards for health educators have been a source of disagreement which has been perhaps more diversive than any other health education issue in the Department. Opinions on the subject range all along a scale from the theory that no one but Master's Degree level health educators should be providing such services to the theory that anyone with proper motivation and bright ideas can provide health education. In the middle is the interdisciplinary approach.

Although quality control is extremely important to the ultimate success of health education, personnel qualifications need not be the issue that it has become.

Cost

Although it is almost impossible to estimate how much money is currently being spent on health education by State government, a ballpark figure would be in excess of $400,000. The problem with arriving at an accurate funding figure is that many programs do not have a separate budget category for health education and health information.

As stated under continuity, the funding levels of health education programs are always uncertain. When told to make budget cuts, agencies often find education and information activities the easiest item to eliminate. This signifies a lack of policy commitment to health education; an issue which will be discussed in more detail in the following section.

POLICY SUMMARY ANALYSIS

The most significant policy of State government toward health education is reflected in the programs just reviewed.

While State laws, policy directives and politicians pay homage to the concept of preventive health and lifestyle changes, the verbage is not reinforced by actual programs. In fact, in many instances programs and policies contradict health education goals.

The State's total health budget is about $70 million annually. The estimates for health education add up to less than one percent of that figure. Within some program areas this percentage is greater, but the overall picture speaks of the overall policy.

Below are some of the more blatant policies contradictory to the concept of knowledgeable health consumers:

Because of the lack of funds, the State Medicaid program has stated that it will discontinue payments for preventive services such as dental care and vision care. It does not provide reimbursement for health education costs;

Although several education programs are directed at highway safety, driver's education and defensive driving, penalties for exceeding the speed limit remain very low and many policy makers support an increase in the speed limit; and

Dental health education is provided, but the State law does not require fluoridation in public water systems.

Needs

Health education needs can be separated into two main categories: consumer needs and policy and program needs.

Consumer needs include:

...improved accessibility to general health information and to more specific health education through the development of a statewide resource directory, a statewide telephone information line, such as Tel-Med, an easily identifiable information office, or some other source of access information.

...program planning based on population needs rather than program traditions or program priorities. Among the more evident population needs, as supported by health status figures, are education on lifestyle changes and self-care.

Policy and Program needs include:

...the development, adoption and implementation of a strong policy supportive of health education.

...the coordination of existing programs, requiring the State Department of Health and Environmental Sciences to take a strong lead in the planning and coordination of such programs statewide. In order to establish this leadership role, the Department needs to resolve its own disagreements regarding health education.

...education for health-related agency staff on health education.

...the institution of a uniform budget category for health education efforts.

...the procurement of reliable funding for health education programs.

...the elimination or changing of policies inconsistent with health education goals.

CONCLUSION

The following recommendations are presented as a conclusion to the above analysis:

1. The SHPDA should bring together health education experts from within and outside of State government to provide a series of seminars for the SHCC and for health agency staff on health education.

2. Key policy-makers (Directors, Division Administrators and Bureau Chiefs) from the Department of Health and Environmental Sciences, the Department of Social and Rehabilitation Services, the Department of Institutions and the Office of Public Instruction and one or more members of the SHCC should come together on a health education task force to resolve policy issues, including:

   ...how committed State government will be to health education in terms of written policies and funding levels,

   ...who in State government will take a leadership role in planning and coordinating health education,

   ...what to do with policies inconsistent with health education goals.

3. Recommendations for the health education policy task force to take into account are:

   a. The Governor and/or the Legislature should adopt a strong policy committing the State to health education as an essential right of Montanans.

   b. The government of the State of Montana should assume a leadership role in the planning and coordination of health education services.

   c. One agency of State government should be designated as the lead agency for planning and coordinating statewide health education services. However, this agency may or may not have health education as its sole responsibility.

   d. The lead agency should be located within the Department of Health and Environmental Sciences.

   e. A task force should be employed by the lead agency each year to plan and coordinate health education services.

   f. State government's health education plan (needs, priorities, goals) should be presented to the SHCC on an annual basis for review and comment.

   g. School curricula should be changed to put more emphasis on health education.

GOALS, OBJECTIVES, AND RECOMMENDED ACTIONS

GOAL 5: DEVELOP FRAMEWORK AND POLICY FOR STATEWIDE HEALTH EDUCATION.

GOAL LEVEL 5.A: TO PRODUCE HEALTH PROMOTION AND HEALTH EDUCATION PROGRAMS IN TWO WORK PLACES AVAILABLE TO AT LEAST 10 PERCENT OF THE EMPLOYED WORK FORCE IN STATE GOVERNMENT ASSIGNED TO HELENA.

OBJECTIVE 5.A.1:

TO ESTABLISH TWO PILOT HEALTH PROMOTION AND HEALTH EDUCATION PROGRAMS IN STATE GOVERNMENT WORK PLACE SETTINGS BY 1982.

RECOMMENDED ACTION 5.A.1.a:

Design a model health promotion and health maintenance program for the DHES and one other State agency.

1. Program Description

   A model program for implementing health promotion and prevention of illness activities in a work setting will be designed. It will contain components which can be disseminated to other work place settings. It will include three basic steps:

   a. Identification of individual "wellness" goals and/or health risks through a health assessment and use of a health risk appraisal;

   b. Education about wellness and development of an individual plan to optimize well-being and prevent, modify, or reduce risks; and

   c. Support activities and services to help individuals (basic screening, information, basic health education, courses on stress reduction or relaxation techniques, counseling on personal growth, alcohol or drug abuse programs, weight reduction, smoking cessation clinics).

2. Target Groups

   The target group is adults, ages 18 through 65 years. The work setting was chosen since it offers an opportunity for individuals to incorporate positive health behaviors into

their daily routine. It extends group support system, with companionship and peer role models.

3. Major Milestones

   a. Contact the Directors of the two State agencies to gain their support and assistance in the development and implementation of this project.

   b. Collect data concerning similar programs around the nation.

   c. Develop model and an evaluation component.

   d. Contact employees to determine their interest in an employee health promotion program.

   e. Utilize expertise from a number of staff members in an inter-disciplinary approach to health promotion.

4. Locus of Responsibility

   SHPDA and DHES health educators would have the primary responsibility in the developmental stages.

5. Resource Requirements

Manpower:	SHPDA Staff	.10 FTE
	DHES Staff	.05 FTE
Source of Funds:	No funds needed at this time.	

6. Anticipated Impact

   Peer support, changes in diet, exercise, and stress reduction should lead to healthier employees and lower the rate of hospitalization and days lost from work.

GOAL LEVEL 5.B: HEALTH PROMOTION ACTIVITIES SHOULD BE COORDINATED, UPGRADED, AND EXPANDED SO THAT EFFECTIVE PUBIC HEALTH EDUCATION PROGRAMS ARE AVAILABLE AND ACCESSIBLE THROUGHOUT MONTANA.

Rationale: For health education activity effectiveness, residents of Montana should be motivated to: 1) participate in community decision-making; 2) adopt lifestyles and health habits which prevent illness and maintain health; and 3) utilize health services and resources appropriately.

OBJECTIVE 5.B.1.:

TO SET UP A MECHANISM WHICH WILL DEVELOP AND COORDINATE HEALTH PROMOTION ACTIVITIES IN EACH REGION BY 1984.

RECOMMENDED ACTION 5.B.1.a:

Establish a consumer health education resource center in each region.

1. Program Description

   The function of the consumer health resource centers will be:

   a. Clearinghouse - To provide a storehouse of information, including health education implementation strategies which have worked or failed in other areas; develop an inventory of existing health education programs; facilitate the sharing of media equipment;

   b. Coordination - To coordinate all consumer health services in the Region; develop overall goals and priorities for consumer health education services;

   c. Evaluation - To inventory and evaluate programs in existence for effectiveness and publish the results;

   d. Innovation - To make original contributions to the general field in the form of reports and surveys, original material and resources, and documentation of programs; to develop and aid in the implementation of creative and imaginative health promotion and prevention programs and identify sources of funding.

2. Target Groups

   The Consumer Health Resource Centers will work primarily with provider groups such as the Montana Heart Association, Montana Cancer Association, Montana Mental Health Association, and local schools. It will also meet with HSA subarea councils, local government, local businesses, and appropriate State agencies in carrying out its functions and obtaining funds.

3. Major Milestones

   a. Work with the HSA and the subarea councils which have recommended health education priorities in their Region. Initial work will concentrate on planning activities.

   b. Promote State legislation which will help fund such projects.

4. Locus of Responsibility

   Planning activities will involve SHPDA and the HSA staff.

5. Resource Requirements:

   Manpower: SHPDA Staff .05 FTE

   Funding: Potential State funding, local donations, Federal sources, i.e., grants.

6. Anticipated Impact

   Improvement of health status through improvements in behavior and lifestyle should occur with accompanying decreases in morbidity and early mortality.

   Improved coordination and a reduction in duplication of services should occur in health systems with an overall reduction in health care costs. However, these reductions will only occur through a long-term process.

OBJECTIVE 5.C.1:

TO ESTABLISH A PILOT "LIFESTYLE" SKILLS FOR MENTAL HEALTH PROGRAM BY 1982.

RECOMMENDED ACTION 5.C.1.a:

Design and impement a model "lifestyle" skills for mental health program in at least one community mental health center.

1. Program Description

   The intent of the program is to introduce teachers and other adults to a role they can play in helping young people learn about themselves and relationships with others. Adults will be trained to help young people develop positive self-concepts, more productive communication and decision-making skills, and to learn to deal with the frustrations as well as joys inherent in daily life.

2. Target Groups

   The primary target groups are children and youth, ages 6 through 18 years.

3. Major Milestones

   a. Make contact with the Division of Mental Health and Residential Services to begin initial planning activities.

   b. Set up a special Committee which would include representatives from the SHCC, SHPDA, HSA, OPI, and Mental Health. The Committee would advise staff as to the most appropriate placement of the pilot program and to review materials and evaluation protocols.

c. Develop the program.

d. Develop the evaluation component.

e. Begin training activities.

4. Locus of Responsibility

Initial planning activities will be the responsibility of SHPDA and Mental Health and Residential Services staff. Implementation of the program will rest primarily with the Mental Health and Residential Services Division, the Office of Public Instruction, and a Community Mental Health Center.

5. Resource Requirements

Manpower:	SHPDA staff	.05 FTE
	Mental Health Division staff	.05 FTE

Funding Sources: Potential funding sources could include Federal grants and through the legislative budget process.

6. Anticipated Impact

If this program is fully implemented and successful in achieving its goals, the effects could be substantial. It should promote improved self-concepts and mental well-being in addition to reducing the rates of suicide and substance abuse. Other benefits could include more interest in school, better communication, and increased productivity in school work.

FOOD AND CONSUMER SAFETY

INTRODUCTION

The following section is not intended to be an exhaustive analysis of the Food and Consumer Safety Bureau, but rather a baseline view of activities recently undertaken regarding the Public Establishments Program of the Bureau, specifically Food Services.

Participants in these activities, in addition to SHPDA and Food and Consumer Safety staff, have been Applied Management (Consultants) and members of the Missoula and Flathead County health departments.

SUMMARY ANALYSIS

The surveillance of environmental factors which cause human disease has a long history supported by substantial observed data and information. In particular, safe water to drink, proper disposal of solid and liquid wastes, clean food and decent housing are traditional areas of State and local involvement in public health promotion and protection.

The immensity and technology associated with these and other environmental programs (like air quality, and occupational health, for example) has caused a sharing of responsibilities to implement adequate and effective program directions. In Montana, these responsibilities are contained primarily in the Bureau of Food and Consumer Safety, Environmental Sciences Division, Department of Health and Environmental Sciences. Some local departments in areas with larger populations have developed similar capabilities, although not in all environmental programs.

Within the Food and Consumer Safety Bureau is the responsibility for Public Establishments; Jails and Institutions; Food, Drug, and Cosmetics; Consumer Project Safety; Vector Control; and Swimming Pools. The Public Establishments Program is concerned with "protecting the public health through the prevention of unsanitary, unhealthy and environmentally unacceptable and degrading conditions in public establishments" (these are public food service establishments, bars, general public housing, hotels and motels, trailer courts, campground and migrant worker housing and the related environments).

Because of the increasingly limited resources for handling these programs, questions have been raised about the propriety of blindly performing duties traditionally associated with them. Specifically, is routine inspection of food service establishments of sufficient impact on health to continue allocating resources to it?

While an evaluative mechanism for food service inspections has been in place in Food and Consumer Safety for many years, concerns have recently been voiced about the mechanism's effectiveness.

The service or activity consists of routine inspection of licensed eating and drinking establishments. Authority for this activity stems from State law and rules (the rules are currently proposed to be updated). Criteria for each establishment evaluation are contained within the rules.

In local governmental jurisdictions, locally hired sanitarians perform these routine inspections (in addition to other routine public health inspectional duties) with the State agency acting periodically (usually at the local agency's request) as program evaluator.

In areas with no local sanitarian, State agency personnel perform the inspectional duty as time and resources allow.

Cost

The proposed FY 79 budget for the Bureau is $117,363 of State appropriations and Federal aid in the amount of $92,039, supporting a staff of 14 FTEs. Five other programs (mentioned above) are supported in addition to public establishments. Additional support for the Food Service program comes from the receipt of fees for licensing each establishment, with the local health department receiving an apportionment of the fee.

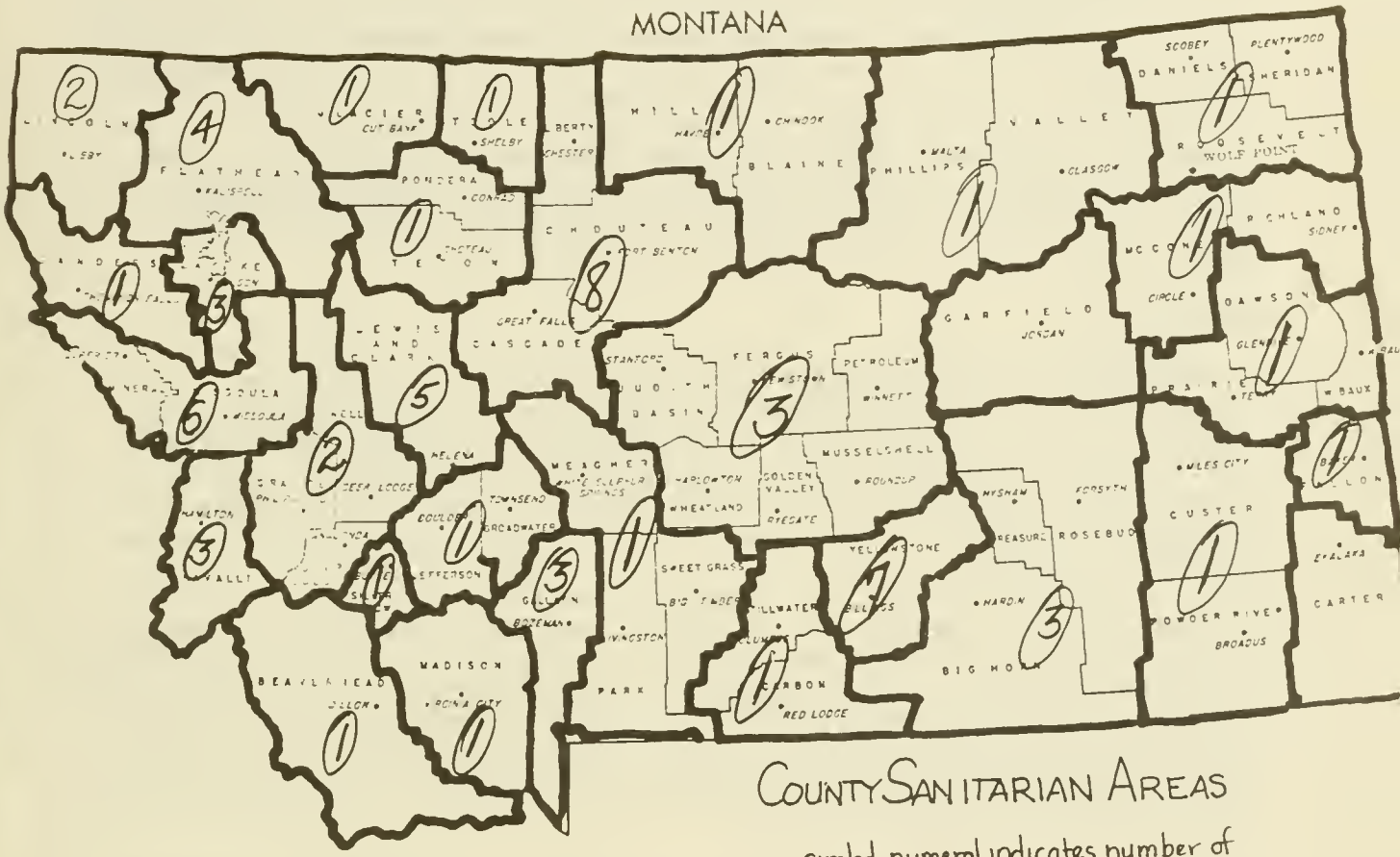
No direct costs to the consumer for the service are solicited, since support for the program has traditionally been through tax dollars via State and local government.

Availability

These services are available to all residents of the State and those non-residents who pass through the State. In most areas of the State, local health departments provide the services, while the State agency will cover those areas lacking local support personnel.

FIGURE 1

MONTANA



COUNTY SANITARIAN AREAS

circled numeral indicates number of sanitarians serving the area.

April, 1979

No. 1042 — County Outline Map

Accessibility

Any citizen or user of food services benefits from either State agency or local department coverage of this program. A toll-free number (1-800-332-2272) allows entry into the system for anyone who has a complaint or needs assistance.

Local and State personnel are available for technical assistance, plan review and evaluation prior to construction, and educational and training activities.

Continuity

Adequate and ongoing coordinative linkages are demonstrated.

Acceptability

Public establishment surveillance is accepted by professionals and public alike, as evidenced by continued financial support by State and local governing bodies.

However, reliable and valid data for direct measurement of acceptability does not currently exist. Indirect measures, such as numbers of complaints received by local and State departments, are available but limited in use.

Quality

In answer to the question of health impacts, processes and resources of food services inspections, a pilot agency protocol and an accepted set of improved evaluation measurement criteria (developed by the Consultant, SHPDA staff, local government health agency staff and staff members of Food and Consumer Safety Bureau) has been developed and will be implemented in 1979.

The protocol attempts to integrate existing evaluative measures with a more realistic and definitive approach to food service program analysis. Developed in a cooperative spirit, the protocol provides a written format for the interaction of State and local authorities during an evaluation. The protocol is to be used within current authority extended by State law and rules to each health agency.

After a period of time (12-18 months), the SHPDA will assess the implementation of the protocols and provide a report on the pilots themselves and on the possible use of such a format in other areas of the SDHES.

CONCLUSION

The Food and Consumer Safety Bureau is responsible for six community health protection and promotion services. Of these, food service program evaluation has been analyzed for baseline use. In addition, the evaluation model will be adopted to other public health related programs which will include home health, communicable disease, sexually transmitted diseases, high risk maternal and child health programs, school nursing, and laboratory services. These programs will be examined and analyzed in future State Health Plans.

The increasing demands on limited personnel resources, caused in part by increased public perception of environmental and lifestyle problems, and in part by a natural population growth, have caused administrative reevaluations of current resource allocations at both State and local levels.

In spite of the fact that food service programs and others mentioned above are an accepted part of a comprehensive community health protection system, questions concerning the proper allocation of resources within the program have been raised.

Through a cooperative effort extending over the past several months, an improved evaluative protocol has been developed to provide a means to address these problems.

GOALS, OBJECTIVES AND RECOMMENDED ACTIONS

GOAL 6: TO PROMOTE AND PROTECT THE HEALTH OF MONTANANS THROUGH THE MOST RESPONSIBLE AND EFFECTIVE PUBLIC HEALTH MEASURES POSSIBLE.

GOAL LEVEL 6.A: TO IMPROVE THE EFFECTIVENESS, EFFICIENCY, QUALITY AND APPROPRIATENESS OF PUBLIC HEALTH SERVICES AT STATE AND LOCAL LEVELS.

GOAL LEVEL 6.B: TO ESTABLISH A MORE EFFECTIVE EVALUATION PROGRAM FOR FOOD AND OTHER PUBLIC HEALTH SERVICES IN MONTANA.

Rationale: The present system of regulation is inadequate for a variety of reasons. A principal shortcoming is data collection and evaluation to provide information upon which to base new programs.

OBJECTIVE 6.B.1:

TO DEVELOP A MORE RELIABLE STATEWIDE MONITORING AND REPORTING SYSTEM BY 1980.

RECOMMENDED ACTION 6.B.1.a:

Establish in at least one local health department an evaluation project which will be tested and refined.

1. Activities and Responsibilities

   a. Develop and refine existing evaluation programs and tools regarding food services.

   b. Develop evaluation protocols for use by State and other local health departments in other areas of public health such as home health, communicable disease, sexually transmitted diseases, and high risk maternal and child health.

   c. Test these developed evaluation programs within a local health department.

2. Major Milestones

   a. Acquisition of funds required to upgrade/expand evaluation project.

b. Formal adoption of improved monitoring and reporting (evaluation) procedures.

3. Locus of Responsibility

Responsibility will rest largely with the local health departments, the Bureau of Food and Consumer Safety, Bureau of Maternal and Child Health, Bureau of Preventive Diseases, and SHPDA.

4. Resource Requirements

It is estimated that $29,344 will be required during the first year. This dollar figure is the amount currently being requested by a local health department to develop the evaluation model.

OBJECTIVE 6.B.2:

DISSEMINATE FINALIZED EVALUATION MODEL TO OTHER STATE AND LOCAL HEALTH DEPARTMENTS BY 1981.

RECOMMENDED ACTION 6.B.2.a:

Generalized evaluation models developed in the demonstration project will be utilized in at least two other local health departments.

1. Activities and Responsibilities

a. Complete evaluation of home health, communicable disease, sexually transmitted diseases, and high risk maternal and child health programs.

b. Develop generalized evaluation models to use by other State and local health departments.

c. Develop two new protocols to be implemented in the local health department which include school nursing and laboratory services.

2. Major Milestones

a. Acquisition of funds required to expand evaluation project.

b. Establishment of statewide evaluation program.

3. Locus of Responsibility

Responsibility will rest largely with the local health department, other local health departments, involved State agencies and SHPDA.

4. Resource Requirements

It is estimated that $30,000 will be required to finalize and disseminate the evaluation model.

PREVENTION AND DETECTION SERVICES

Prevention and detection services are delivered to individuals in order to promote optimum physical and mental well-being, including protection from the development of disease and ill health; or to identify disease or ill health at the presymptomatic or unrecognized and symtomatic stage, to permit early intervention. Health system activities designed to insure health protection include:

...Individual Education

...Routine Examination

...Immunization

...Dental Prophylaxis

...Mental Health Consultation

Detection services not only attempt to uncover disease and ill health conditions but also to identify individuals at risk of developing such conditions. Service categories include:

...Screening

...Followup

...Physical Abuse Reporting Systems

Prevention and Detection Services lend themselves to delivery in home, ambulatory, and mobile settings. Many of these services are amenable to self-delivery; i.e., routine breast self-examination for "lumps" which possibly are cancerous.

Preventive Dental Services falls into this category of service and is usually found in the community setting. Some of the services provided are:

...Water Fluoridation

...Fluoride Mouth Rinse Programs

...Dental Screening and Referral

...Dental Education Programs in Schools

Preventive dental services are important to health because tooth decay and gum disease are two diseases suffered by individuals which are preventable. All Montanans should be aware of the benefits of preventive dental health measures and should have access to these, especially school-age children.

PREVENTIVE DENTAL SERVICES

INTRODUCTION

Prevention and Detection Services are provided to individuals to promote and maintain good health. Prevention is often described as consisting of three stages: primary, secondary, and tertiary prevention.

Primary prevention includes actions or interventions designed to prevent etiologic agents from causing disease or injury in individuals. Secondary is concerned with the early detection and treatment of disease in order to cure or control its course. Tertiary includes those activities directed at ameliorating the seriousness of disease by reducing disability and dependence resulting from it.[1]

Preventive Dental Services, which we are addressing, is concerned basically with primary and secondary prevention.

Preventive Dental Services can also be addressed under Community Health and Promotion and Protection Service. The usual setting is the community.

Montana dental providers and the public are currently very active in programs designed to improve dental health, especially among school children, through prevention and detection.

Preventive Dental Services are much less expensive than treatment of dental caries and disease. This first State Health Plan will discuss the services delivered in Montana and will include SHCC and SHPDA statewide goals, objectives and recommended actions.

SUMMARY ANALYSIS

The best approach to the problem of dental caries and dental disease is not through treatment after the fact but through programs aimed at prevention.

Dental disease is widespread and costly. Children usually begin to get caries at a very early age, and older people suffer from the added problem of periodontal disease. Dental caries and periodontal disease account for the large number of people who have lost all their natural teeth. Tooth loss increases with age; three out of ten people age 35, four out of ten past age 45, and five out of ten past 55 have lost all their natural teeth.[2]

The National Committee on Nutrition in 1972 concluded that dental caries is one of the most prevalent diseases for all age groups beyond infancy. A ten-state nutrition survey (CDC) conducted in 1972, found that by age 10, more than 80% of all children surveyed had caries in permanent teeth.

Most dental disease can be prevented through primary and secondary measures. These include: the use of fluorides; dental education programs; and dental examinations with follow-up care.

The Dental Health Bureau funded two demonstration projects to attempt to identify those with caries and high-risk individuals amenable to early intervention. Results of the Flathead County Children's Dental Health Project and Anaconda Fluoride Mouth Rinse Program are included as examples of preventive dental services currently operating in Montana. (See Appendix II.)

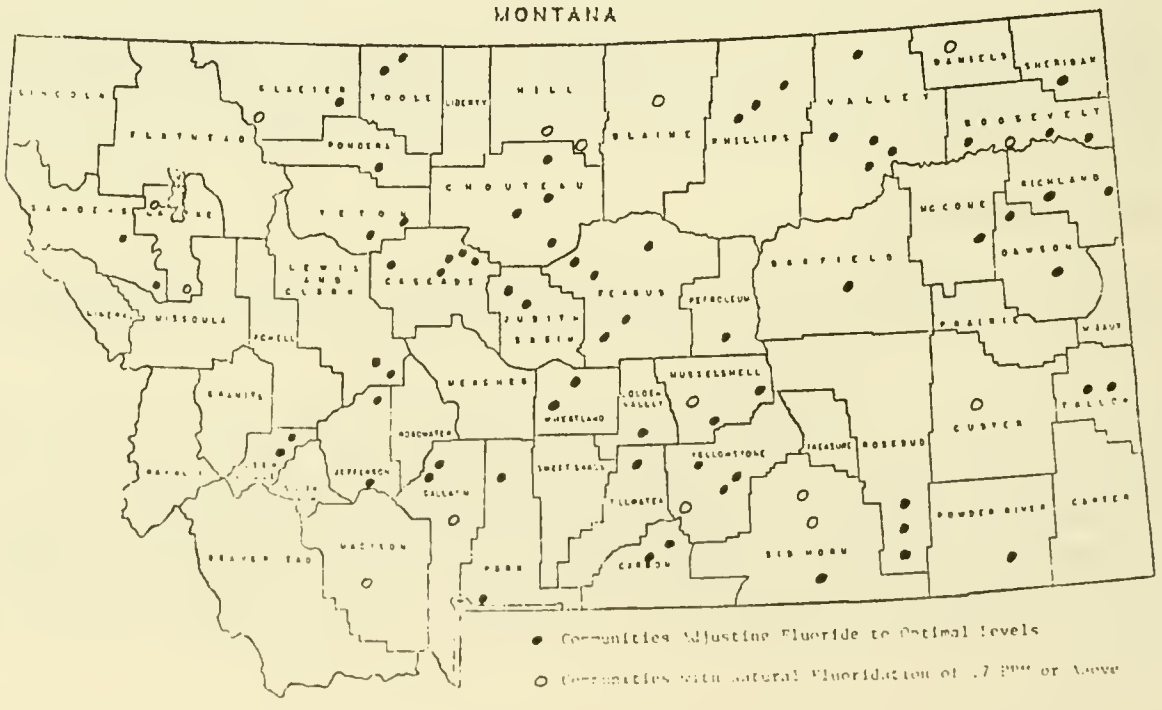
Prevention programs provided by the Bureau of Dental Health (See Appendix VI) are aimed at school children in Montana. However, dentists provide preventive services through education, dental examinations, and follow-up care to most of their patients.

Accessibility

Fluoride is the most effective known agent available to prevent tooth decay. Fluoridation of public water supplies is the most effective and least costly method of fluoridation. Seventy-seven Montana communities have naturally fluoridated water supplies, but only about 27% of Montana's population is drinking fluoridated water. Most of the larger communities do not have fluoridated water supplies.[3] (See Figure 1.)

FIGURE 1

MONTANA



Several school systems are currently participating in fluoride mouth rinse programs which can lead to a 20-50% reduction in caries.[4]

In recent years there has been a substantial rise in the number of dentists practicing in Montana, but there are still some shortage areas. Auxiliary dental personnel--dental hygienists, assistants, and laboratory technicians--have also increased in number in recent years.

Availability

The benefits of a brushing demonstration and a dental health education program in Montana schools reached 53,650 children in the 1977-78 school year. These services were provided by the Dental Health Bureau and its dental health educator.[5]

Dental screening, dental health projects, and fluoride rinse programs are currently serving school children in many areas of Montana through the Bureau of Dental Health and private providers.

The recent increase in dentists and auxiliary dental personnel in Montana increased the availability of preventive dental care and treatment of dental disease.

Acceptability

Acceptability of dental health depends on the following factors: Lack of Accurate Information includes lack of accurate information about the nature, prevention and treatment of dental disease and lack of accurate information about dental services and how to obtain them.

Fear is a very real barrier to dental health care. People may simply be afraid to go to the dentist. They may fear the pain (real or imagined) and they may fear the cost of treatment. Some people fear the side-effects the use of fluoride might have on future health even though it has not been proven to cause any damage to health.

Values - Different cultures and economic and social classes place different values on dental health. The extent to which an individual's cultural environment places low value on dental health becomes a barrier to preventive dental health care.

Water fluoridation continues to be a controversial issue. There is considerable debate in Montana on whether fluoridated water supplies are necessary. There was a bill in the 1971 Montana Legislature to require mandatory water fluoridation in cities of over 1,000 population which failed.

Water fluoridation is supported by the American Dental Association, American Medical Association, American Heart Association, National Cancer Institute, American Cancer Society, and the U.S. Public Health Service.[6]

Continuity

Continuity of dental care relies on the referral of the patient from one dentist to another, and the burden of follow through on the referral lies with the patient. Systematic continuity between the health system as a whole and dental health service is nonexistent. The exclusion of dental health from most general health insurance coverage perpetuates this fragmentation.[7]

Even when third-party payments are available for dental services, they may be structured in ways that discourage continuity of care. Medicaid, for example, sponsors a comprehensive program of health screening, diagnosis and treatment for children up to age 18--known as Early and Periodic Screening, Detection, and Treatment (EPSDT). However, Federal reimbursement for dental services is at a lower rate than for other health services, almost guaranteeing that dental health will receive low priority under the program. Further, the reimbursement rates are adequate for screening and detection services, but so low for treatment that there is little incentive to encourage continuity between identification of disease and its treatment, even though one without the other is meaningless.[8]

Cost

Dental care, like other health care, is costly. Unlike many health services, dental care is still largely paid for directly by the consumer. Many people who need and desire the services cannot, or believe they cannot, pay for them.

While prepayment plans have multiplied in recent years, only 14% of the population have dental services paid through some third-party payors (other than Medicaid). Medicaid covers most dental services for low-income elderly, dependent children, the blind, and the disabled, but has many inadequacies. The fee schedule used by Medicaid tends to favor extractions and prothetics over prevention and maintenance care. Thus, financial considerations may encourage unnecessary and untimely loss of teeth which might otherwise be saved.

Medicare includes virtually no dental services except oral surgery. For older persons on fixed incomes who are not eligible for Medicaid, dental care is often unaffordable.

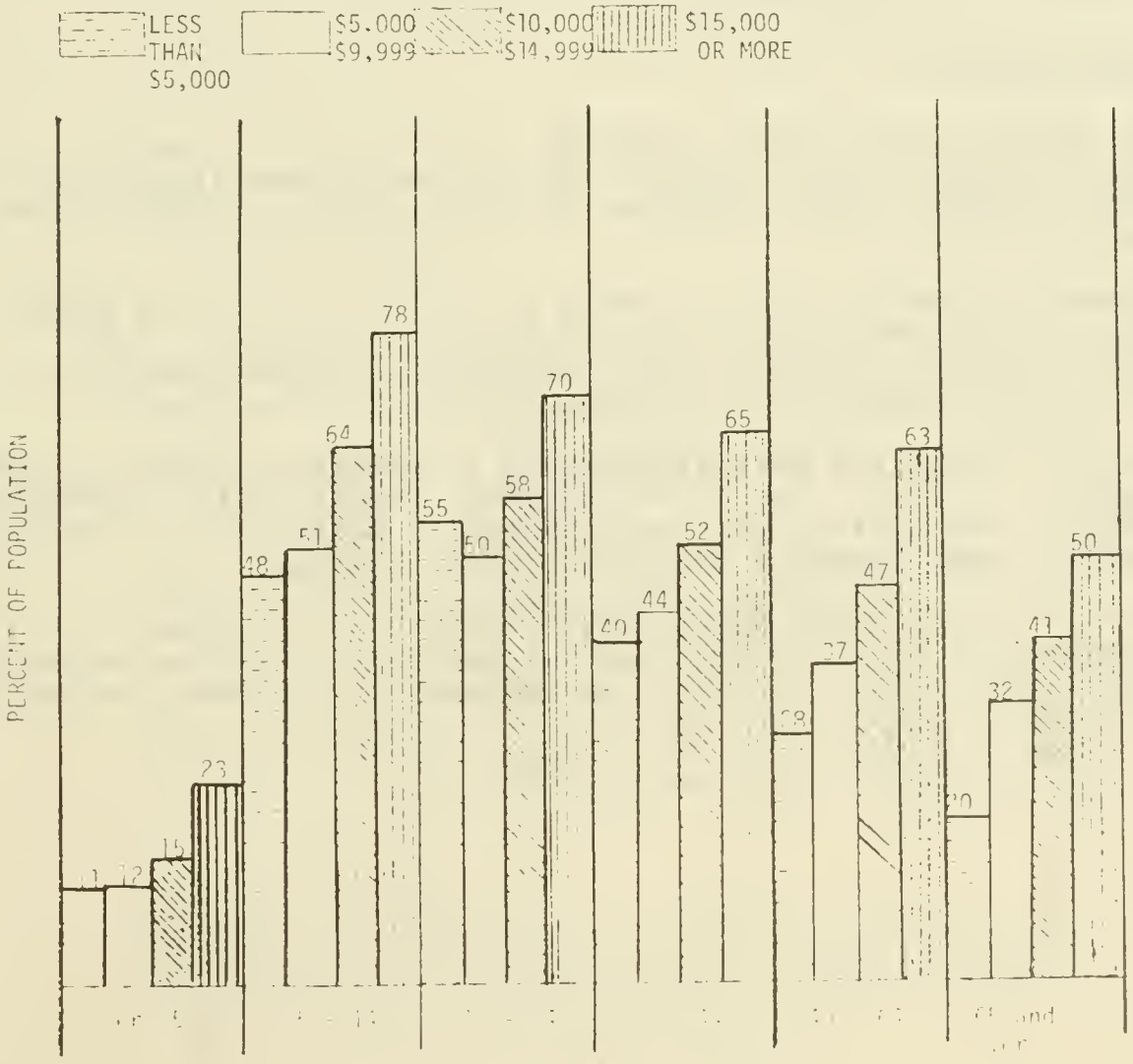
Family income makes a significant difference in determining who will see a dentist at least once during the year. In 1975, in every age group, the proportion of people who saw a dentist was smaller in families of lower income than in families with higher incomes.

There is no correlation between income and the value placed on dental care. However, among children ages 5-14, who should be seeing a dentist at least once a year, only 48% of the children from low income families and 78% of those families with incomes of $15,000 or more, saw a dentist even once during the year.[9]

At older ages the differences were as great. Among adults ages 45-64, 28% of the low income people, in contrast with 63% of the high income people, had one or more visits during the year. By age 65 and over, the comparable figures were 20% and 50%.

FIGURE 2

PEOPLE WHO GO TO THE DENTIST



The cost of fluoridation in selected Montana communities ranges from $.06 to $1.35 per person per year with a state average of $.19 per person.

Fluoride mouth rinse programs could provide significant reductions in dental decay for less than $.50 per year per child.

Topical fluoride, applied in the dentist's office, is an expensive (but very effective) method both from the standpoint of money and dental manpower.

The school preventive "Brush In" program, serving about 50% of all elementary school children, cost $.48 per student in the 1976-77 school year.

The Bureau of Dental Health estimates a statewide screening program of school children would cost approximately $500,000. Part of this cost would involve hiring 10 dental hygienists to carry out the program.[10]

CONCLUSIONS

The Dental Health Bureau, through the "Brush In" program, fluoride mouth rinse programs, dental health education and dental screening has continued to demonstrate that prevention works.

Preventive Dental Services are a proven beneficial and cost-effective deterrent to treatment of dental disease. Much pain and suffering from caries and dental disease can also be avoided through prevention measures.

However, there are several barriers to preventive dental health measures. One is lack of fluoridated drinking water in Montana, which is the easiest and least expensive method of prevention. The cost and financing of dental care is another.

It is essential that dental health education be offered to all Montanans in order to overcome the barriers to the acceptability, availability, accessibility and continuity of preventive dental services.

GOALS, OBJECTIVES AND RECOMMENDED ACTIONS

GOAL 7 : TO REDUCE THE PREVALENCE OF DENTAL DISEASE IN MONTANA THROUGH PREVENTIVE MEASURES, ESPECIALLY AMONG SCHOOL CHILDREN.

OBJECTIVE 7.1:

TO PROVIDE ALL SCHOOL-AGED CHILDREN IN MONTANA WITH A SOURCE OF FLUORIDATED WATER OR FLUORIDE SUPPLEMENT BY 1985.

RECOMMENDED ACTION 7.1.a:

Initiate discussions with local officials concerning the feasibility of fluoridating the central water supplies, where applicable. Where there is no fluoridated central water supply, encourage school officials in the concept of fluoridated school drinking water.

OBJECTIVE 7.2.:

TO TEACH SCHOOL CHILDREN THE VALUE OF ORAL HEALTH PRACTICES AND PROPER NUTRITION.

RECOMMENDED ACTION 7.2.a:

Through the Dental Health Bureau and the Office of Public Instruction, encourage a dental health education curriculum for all elementary schools in Montana.

GOAL 8: TO MAKE DENTAL CARE MORE ACCESSIBLE TO MONTANANS WHO NEED CARE BY PROVIDING A BETTER REIMBURSEMENT STRUCTURE.

OBJECTIVE 8.1:

EXAMINE THE FEASIBILITY FOR EXTENSION OF COVERAGE OF THIRD-PARTY PAYORS TO INCLUDE COMPREHENSIVE DENTAL SERVICES BY 1982.

RECOMMENDED ACTION 8.1.a:

To determine needed changes in the reimbursement structure (state, federal, and private) for dental care, and encourage and support extension and/or inclusion of dental treatment coverage in health care plans for Montanans.

RECOMMENDED ACTION 8.1.b:

To raise the dental health knowledge of Montanans so they will practice preventive dental health care.

Educating the public about the importance of dental health is essential to good community health. Education should point out that oral hygiene must begin at an early age and that preventive practices must be continued throughout life. The importance of nutrition in preventing dental diseases should also be highlighted along with information in the availability of dental services.

DIAGNOSIS AND TREATMENT SERVICES

Diagnosis and treatment services are defined as those services for evaluating the health status of individuals and identifying and alleviating disease and ill-health or the symptoms thereof. At present, the greatest portion of the health care dollar is spent to diagnose and treat ill-health symptoms.

Resources have been poured into development of a myriad of diagnostic procedures, technological advancements in specialized equipment and surgical procedures, chemical and drug solutions, and highly trained and specialized manpower in an attempt to further medical science and thus to prolong life and lessen its pains. Yet the high cost of these resources is now giving policy makers reasons for concern. Many alternatives are being explored.

The current health system is in transition, with threats of increasing regulation as costs continue to rise. Because diagnosis and treatment services consume the largest amount of dollars, they will no doubt bear the brunt of regulatory controls which are implemented;and be subjected to close scrutiny from planners and regulators. The impact of these efforts on the health and mental health of the population and cost containment can only be measured in the future on where health dollars are spent.

For the first Montana State Health Plan, the following Diagnosis and Treatment Service will be addressed:

...Maternal and Infant Service System

MATERNAL AND INFANT SERVICE SYSTEM

Increasingly, it is being realized that favorable pregnancy outcomes are strongly associated with socio-economic, psychological and environmental factors. This has led to a broadening of the defined scope of obstetric services to include services rendered prior to conception such as genetic counseling and a greater emphasis on "non-medical" aspects of care such as the provision of nutritious food supplements, nutrition counseling, and counseling regarding the effects of cigarette smoking and alcohol consumption.

Efforts to improve pregnancy outcomes have resulted in the development of several government program initiatives. Four major programs are currently operational in the State of Montana. Already established are public programs: the Handicapped Children Service; Maternal, Infant and Child Care Project (MIC); Nutrition Program including Special Supplemental Food Program for Women, Infants and Children (WIC); and privately, the Neonatal Intensive Care Units (NICUs).

The Bureau of Maternal and Child Health, Montana Department of Health and Environmental Sciences, is responsible for providing a variety of services within alternative settings according to the needs of mothers, infants and children. For this first State Health Plan, public and private maternal and infant programs will be discussed briefly and analyzed. The next SHP will address children's services.

SUMMARY ANALYSIS
(Bureau of Maternal and Child Health, SDHES)

Handicapped Children Services

The Handicapped Children program provides both diagnostic and treatment services and prevention and detection services to financially eligible families statewide. The services are available for children 0-21 years of age. This Plan only addresses infants under the age of 1 year. The major settings in which these services are delivered are short-stay, long-stay, ambulatory and community.

This program is responsible for providing services to newborn infants in need of special intensive care. These services are purchased from and through private medical care specialists from special project funds which have been earmarked by the

MCH Bureau. In FY 1979, it is estimated that this program will fund the transport of 55 newborns to neonatal intensive care units for specialized treatment who have diagnoses eligible for payment from the Bureau. In addition, infants with congenital anomalies such as cleft lip and palate, may be eligible for treatment services under this program.

In addition, the program provides secondary services which include prevention activities, health and nutrition counseling and follow-up.

Health Systems Taxonomy Analysis:

Cost

Basic funding for the program is generated by a federal formula grant (Bureau of Community Health Services, Title V, Social Security Act) to the State and by State funds. In FY 1979, the Federal funds expended were $814,949 and State funds were $239,038 for infant and children services. The funds are used for medical treatment, evaluation, and administration costs.

In 1978, the cost of transporting 51 newborn infants to NICU centers both in and out-of-state was approximately $53,000. Transport costs were as high as $3,000 per infant to out-of-state NICUs. This included air transport from/return to the NICU center and a team of specialists to care for the high risk infant. Approximately $79,000 is expected to be expended for this service during FY 1980.

Availability

These statewide services are available to financially eligible families as long as funds are available. The determination of eligibility is more lenient than Medicaid as medical expenses, number of children, income, etc., are taken into account.

Accessibility

While funds are available to financially eligible families, services are provided for newborn infant transport and to infants with congenital anomalies.

Continuity

Secondary services, provided by this program, include follow-up and prevention activities. This program also provides information to families for linkages into other needed services in the continuum of care.

Acceptability

The attitude of Montana physicians is very favorable toward this program as it has provided access to specialized services for the newborn infant. It has, in many cases, resulted in a healthy outcome for the infant.

Quality

New technologies and procedures have improved the outcome for the high risk infant. Follow-up evaluation is in progress.

Maternal, Infant and Child Care Project (MIC)

MIC is a program offering personal health care support services in an ambulatory setting to indigent families. Basic funding for the program is generated by a federal block grant of $759,774 (Bureau of Community Health Services, Title V, Social Security Act) to the State and distributed to County Health Departments in five project areas (Billings, Kalispell, Great Falls, Helena and Bozeman) and to statewide programs. Services include health screening, consultation and education and general health counseling, and referrals are made to other programs, including local health providers and appropriate specialists for medical treatment of high risk patients. In addition, the program provides screening and follow-up for inborn errors of metabolism for all infants born in Montana hospitals.

Of the five projects, two pertain to high risk mothers and infants. The Flathead County Health Department, located in Kalispell, and the Yellowstone County Health Department, located in Billings, provide services to high risk pregnant teenagers.

A higher proportion of children are being born to women under the age of 20 than at anytime in history. Of the 13,054 live births in Montana in 1977, 1,958 infants or 15 percent were born to high risk teenage mothers. To address this problem the Maternal and Child Health Bureau funded two projects for pregnant teenage mothers to improve the outcome of their pregnancy, both in terms of mother and infant.

In 1978, the two projects managed health care services to 160 pregnant teenagers and high risk women during the prenatal period. This figure does not include those enrolled in education programs.

In addition to the two projects, other services were provided to mothers and infants. For example in FY 1978, 6,844 infants and children were screened for unsatisfactory health, handicapping, and general health conditions; approximately 13,054

infants were screened for inborn errors of metabolism; and, approximately 2,210 infants and children were referred for further diagnosis and medical treatment. Of these 2,210 infants and children referred, 216 were referred for further evaluation.

Health Systems Taxonomy Analysis:

Cost

The two teenage pregnancy projects were funded in the amount of $142,706. This included medical payments of up to $500 per patient for 50 patients. These funds were to alleviate financial barriers to medical care in those cases where no other public or private resources were available. The cost of the screening project for inborn error of metabolism was $42,000 (administration funds). The Department of Social and Rehabilitation Services in cooperation with the Department of Health and Environmental Sciences funds the screening program for infants and children for further diagnosis and medical treatment.

Availability

Some important prevention programs through Maternal and Infant Services are not available statewide, especially services to high risk women and infants. Also, the capacity of resources for providing care is quite limited.

Accessibility

The two special projects are accessible in two counties with a high number of high risk women. These services are not available statewide. Other program services are accessible to a number of women, infants and children, especially screening, educational, and counseling services to eligible families.

Continuity

Post-partum home visits are available to every primipara (mother bearing her first child) in the program during the first week post-partum in order to assess potential problems and provide information about supportive services which are available to mother and infant. Screening also provides a continuum of services. It is expected that these visitations should be in cooperation with the family physician.

Acceptability

Information is not available for assessing this characteristic.

Quality

During 1977, the infant mortality rate declined to 13.8 deaths per thousand live births, the lowest rate ever recorded in Montana. The process of service delivery is probably impacting on this problem. To date, information is not available to assess the fetal, perinatal, and neonatal mortality rates of the maternal and infant projects.

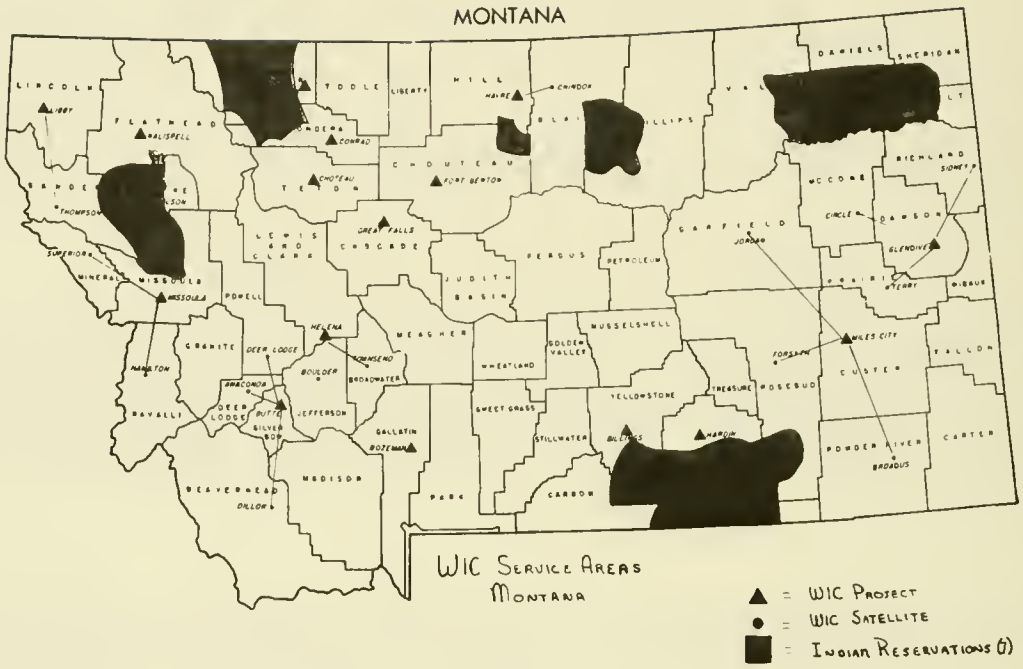
Nutrition Services

The Supplemental Food Program for Women, Infants and Children (WIC) is one component of the State Nutrition Unit. It provides prevention and detection services in an ambulatory setting and is sponsored by the U.S. Department of Agriculture. WIC eligibility is based on financial risk and nutritional risk and services are provided to families within 195 percent of the poverty level guidelines.

The WIC program provides high nutrition food supplements to eligible pregnant women, post-partum non-nursing and nursing mothers, infants and children under age five. Services also include: nutrition education and counseling to improve eating behavior and to promote sound food buying habits, access to preventive health programs, and referral to private and public health providers. The services are generally provided through county health units, facilitating case finding and client accessibility.

In FY 1978, the total number of women and infant visits was 52,485. The average number served monthly reached a total of 2,152 women, 2,222 infants, and 4,126 children. From July 1, 1978, to January 1, 1979, the number of participants has increased from 8,500 to 11,600. Four additional counties will be added by September, 1979, bringing the total counties to 36 and total programs to 43. (See Figure 1)

Figure 1



Health Systems Taxonomy Analysis:

Cost

In 1978, total program costs for Montana were $4.1 million. WIC estimated the cost per client served to be $23.71 per month. At the present time, the WIC program is available in 32 of Montana's 56 counties and the seven Indian Reservations.

Availability

An appropriate supply and mix of health services are available to a number of individuals of high risk groups. Although 32 counties are being served, it is estimated that 1,854 women, infants and children in the remaining 24 counties could utilize these services to alleviate nutritional problems.

Accessibility

About 25 percent of eligible women, infants and children have gained entry into the program. All of the more populated counties provide access for services. Some funds are available for expansion but counties must make application and some, by choice, are not electing to do so.

Continuity

Supplemental foods, nutrition education and counseling, and access and referral to preventive health programs provide a succession of services.

Acceptability

Much of the growth of this program is attributed to word of mouth and the visibility of the services.

Quality

There have been examples of improved outcome of service use. In 1978, 15 percent of the children had low hematocrits (indicator of iron deficiency anemia); 11 percent were stunted (height/age less than 5th percentile on NCHS growth grids). After 6 months to a year's participation in WIC, hematocrits are at an acceptable level in the majority of children; and stunted children grow taller and underweight children gain weight. WIC has also demonstrated that the earlier in her pregnancy a woman gets in WIC, the greater her chances for having a normal, as opposed to a low birth weight, baby.

Neonatal Intensive Care Services

INTRODUCTION

The Montana Health Systems Agency has recommended a regional approach for neonatal intensive care services. In general, these recommendations follow the "levels of care" typology proposed by the Committee on Prenatal Health: National Foundation of the March of Dimes in 1975.[1] This classification scheme identifies three levels of services:

Level I (Community Hospital Unit)

This facility should provide services primarily for uncomplicated maternity and newborn patients.

Level II (Perinatal Care Unit)

Should be available in the large urban hospitals where the majority of deliveries occur. These units should provide a full range of maternal and neonatal services for uncomplicated patients and for the majority of complicated obstetrical problems and certain neonatal illnesses. Institutions operating these units should have the physical capacity to accommodate 2,000 births annually.

Level III (Regional Perinatal Center)

Should provide care for normal patients, but especially for all serious types of maternal and fetal and neonatal illnesses and abnormalities in a medical school setting.

As a means of classifying services and establishing standards for staffing, facilities, and equipment the above typology is largely unproblematic. However, the Committee goes on to recommend at least 2,000 deliveries per year as the minimum volume for all maternity services. The Committee recommends that services providing less than 2,000 deliveries per year (virtually all Level I units) should be discontinued unless justified on the basis of geographic isolation.

In its "Draft Guidelines for Health Planning", the Department of Health, Education and Welfare picked up on the 2,000 delivery minimum, recommending:

...at least 2,000 deliveries in an OB Unit located in an Standard Metropolitan Statistical Area with a population of 100,000 or more.

Further DHEW standards called for:

...at least 500 deliveries annually in any OB Unit in areas with less than 100,000 population and

...an average annual occupancy rate of at least 75 percent in each OB Unit.

DHEW later revised its Draft Guidelines removing the 500 delivery minimum for rural area units and lowering the threshold number of minimum deliveries to 1,500 for urban area hospitals.

In 1978, hospitals in Montana reported having 254 post-partum obstetrical care (OB) beds in service with an overall occupancy rate of 40.75 percent and an average length of stay of 3.034 days.[2] Of the 40 hospitals reporting OB beds in 1978, one provided 2,000 or more deliveries, two provided very near 1,500, four provided over 500 and the remainder provided fewer than 500 deliveries.

Also, in the Draft Guidelines, DHEW standards required:

...Neonatal services should be planned on a regional basis with linkages with obstetrical services,

...the total number of neonatal intensive care beds should not exceed 4 per 1,000 live births per year in a defined neonatal service area, and

...a single neonatal special care unit (Level II or III) should contain a minimum of 15 beds.

In view of the vast differences which exist among areas of the nation, DHEW Draft Guidelines stated that local circumstnaces may render certain of the national standards inappropriate. Thus, the Guidelines provide for exception to the standards when a Health Systems Agency concludes that one or more of the standards should not apply to its area.

The Montana Health Systems Plan suggests that Montana qualifies for exceptions to the second and third criterion - and justifiably.[3] Thus, an average of 10 beds in the three Level II NICU centers are deemed appropriate to serve the current Montana needs. However, a close scrutiny of projected bed needs is in order because of the increase in birth rates and a more rapid population growth than projected.

Regional Neonatal Intensive Care Units

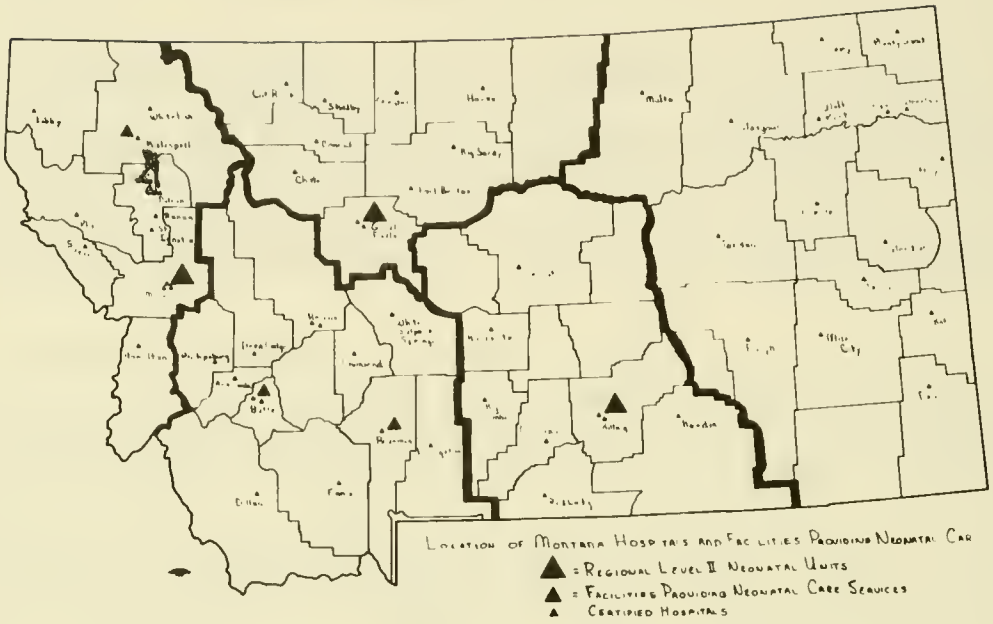
A Neonatal Intensive Care Unit (NICU) is a special unit staffed and equipped for the intensive care of the newborn infant.

Health Systems Taxonomy Analysis:

Availability

As Figure 2 illustrates, Montana has a statewide network of six Regional NICUs located in hospitals. Currently, three NICUs are Level II and three are facilities which do not have the case load or staffing to be Level II units. However, they do provide some Level II services to their surrounding areas.

Figure 2


Location of Montana Hospitals and Facilities Providing Neonatal Care
= Regional Level II Neonatal Units
= Facilities Providing Neonatal Care Services
Certified Hospitals

Level II units are: St. Vincent's Hospital, Billings
Montana Deaconess Medical Center, Great Falls
Missoula Community Hospital, Missoula

Other facilities offering neonatal intensive care are:
Bozeman Deaconess Hospital, Bozeman
St. James Hospital, Butte
Kalispell Regional Hospital, Kalispell

There are some differences in the services provided by the six NICUs in Montana hospital facilities as depicted in the following Table.

TABLE 1

OVERVIEW OF AVAILABLE NICU SERVICES

Montana, 1978

Service * Provided (24 hr./day)	Neonatal Intensive Care Hospital Unit					
	St. Vincent's Hospital Billings	Mont.Deac. Hospital G. Falls	Msla. Com. Hospital Missoula	St. James Hospital Butte	Bzmn. Deac. Hospital Bozeman	Kal. Reg. Hospital Kalispell
Lab	X	X	X	X	X	X
X-ray	X	X	X	X	X	X
Cardiac Mon.	X	X	X	X	X	X
Respiratory Mon.	X	X	X	X	X	X
Blood Pressure	X	X	X	X	X	X
Respirator	X	X	X	X	X	X
Hyperalimentation		X	X		X	
Ultrasound	X	X	X	X	X	X
Fetal Mon.	X	X	X	X	X	X
Amniocentesis	X	X	X	X	X	X
L/S Ratio	X	X	X	X	X	X
Neonatal Mon.	X	X	X	X	X	X
Caesarean Sec.	X	X	X	X	X	X
Neonatal Trans. to Level III Units	X	X	X			X
	Denver	Seattle	Salt Lake	S.L./Seattle	S.L.	Salt Lake

*See Glossary for definition of services.

SOURCE: Health Systems Agency, Montana Health Systems Plan, 1978.

As can be noted in the preceding Table, four units provide newborn transport services to their facility. In 1977, Billings transported 60 patients, Great Falls 41, and Missoula 25.

All units depend upon their Level III referral source for transport out-of-state.

Cost

The average cost per patient day in the Level II units is approximately $475, while the average cost per patient day in the other facilities providing specialized services is approximately $220. The following Table illustrates the number of patient admissions and patient days.

TABLE 2

NICU ADMISSIONS AND LENGTH OF STAY

Montana, 1978

NICU	No. of Beds	Patient Admissions	Patient Days	Ave. Length of Stay
Level II				
St. Vincent's Hosp. Billings	10	314	2705	8.61
Mont. Deac. Hosp. Great Falls	10	142	622	4.38
Msla. Com. Hosp. Missoula	6	83	1252	15.08
Other				
Bozeman Deac. Hosp. Bozeman	2	N/A	N/A	N/A
St. James Hosp. Butte	4	40	311	7.77
Kalispell Reg. Hosp. Kalispell	3	63	251	3.98

SOURCE: Annual Facilities Report, Unpublished Data, Bureau of Health Planning & Resource Development

A NICU is very expensive to build, equip and staff with specialized personnel. Also, the cost per patient day is high. In Montana, the average cost per patient stay in Level II units during 1978 was $4,035. Cost in the $20,000 range per patient stay in long-term Level III units is considered normal nationally with more severe cases in the $40,000 to $50,000 range.[4]

Availability

The strategy of regionalization for care of the high risk infant becomes apparent through analysis of the preceding information. In Montana, linkages have been established, and utilized, between the outlying Level I hospital units and the Level II units, and between the Level II units and out-of-state Level III units. Infants are being transported to Level III centers for long-term care while the Level II units are providing specialized services on a short-term basis.

Accessibility

There are pockets in some of the more rural areas where extended travel time is required to reach a Level II hospital. This is especially true when air transport is unavailable or if there are hazardous winter road conditions. Public resources are limited for providing neonatal intensive care as was pointed out in the description of the Maternal and Infant Project system. And, despite nearly universal medical coverage through health insurance, Medicare, and Medicaid, financial access can be a barrier for those without an insurance program and for the medically indigent who are not covered under the Medicare and Medicaid programs.

Acceptability

Data is not available for assessing this characteristic.

Quality

The Montana Foundation for Medical Care is involved with physician education. Last fall a team composed of an obstetrician and a pediatrician provided education on high risk mothers and infants and how to access Level II care. To date, the team provided the educational program to community physicians in nine small communities and expect to continue the program. They have also been involved in a study on caesarean sections and are currently studying high risk newborn infants and their outcome. The State Department of Health & Environmental Sciences will soon have the capability to make morbidity assessments on high risk infants for whom it provides specialized services. With the information from these evaluative studies, a quality assessment will be made and included in the annual update of the State Health Plan.

Nationally, experience with neonatal centers has shown an approximate reduction from 50 percent to less than 10 percent in mental retardation, cerebral palsy and other results of prematurity, when compared with impairment rates of low birth weight babies prior to the availability of NICU centers.[5]

CONCLUSIONS

The SDHES maternal and infant services and programs are serving a very useful public health service in Montana in compliance with Federal and State policies. The problems related to these services, mainly lack of funds, limit innovation, especially in the area of prevention, and needed services. The thrust of P.L. 93-641, which has the improvement of health as one of its purposes, cannot be achieved in the absence of

prevention and education programs for mothers, expectant mothers, and women of child-bearing years. Nor, can it be achieved without intervention strategies - services.

While the current occupancy rates (40.75%) of OB units are too low, it is difficult to prescribe a single remedy for problems of excess bed capacity. Closure would create the potential for negative side effects related to geographic accessibility and consumer acceptability. There is also little in recent research findings to support improved quality and reduced costs.

It is premature to formulate judgements on the present neonatal intensive care system. As Montana studies are completed and data is available on mortality and morbidity, an assessment can be made on these specialized services. The educational program being provided by the Montana Foundation for Medical Care should be commended and continued. By providing education to physicians and nurses in small Level I hospitals, the prevalence and incidence of infant mortality might well be improved. The SDHES also provides limited educational services which should be expanded.

inasmuch as the infant mortality rate is the lowest ever recorded in Montana, perhaps some factors which may have influenced this desirable state are the SDHES services and programs and access to Level II and Level III specialized services for newborn infant.

GOALS, OBJECTIVES, AND RECOMMENDED ACTIONS

GOAL 9: TO ASSURE THAT HIGH QUALITY, COST-EFFECTIVE NEONATAL SERVICES ARE AVAILABLE AND ACCESSIBLE TO THE POPULATION IN NEED.

GOAL LEVEL 9.A: TO PROVIDE HOSPITAL NEONATAL SERVICES ON A REGIONWIDE BASIS SUCH THAT COSTS, ACCESS, AND ACCEPTABILITY FACTORS ARE OPTIMIZED.

Rationale: In order to assure quality and access of hospital neonatal intensive services in a cost-effective manner, consideration must be given to the availability of hospital services by level of care on a regional basis. This should include a system which has operating components of patient transfer systems, and alternative admission sites by level of care.

OBJECTIVE 9.A.1:

TO ENCOURAGE THE MONTANA ACADEMY OF PEDIATRICS TO ESTABLISH HOSPITAL NEONATAL INTENSIVE CARE UNIT GOALS AND OBJECTIVES BY LEVEL OF CARE BY 1980.

RECOMMENDED ACTION 9.A.1.a:

ESTABLISH AN AD HOC COMMITTEE OF PEDIATRICIANS AND PROFESSIONALS WORKING IN NICUs, SHPDA AND HSA STAFF, AND THE MONTANA HOSPITAL ASSOCIATION.

RECOMMENDED ACTION 9.A.1.b:

INCORPORATE THE ACCESSIBILITY IMPACT ASSESSMENT REQUIRED UNDER OBJECTIVE 8.C.1.

1. Major Milestones

   a. Assign SHPDA and HSA staff to the project.

   b. Set system performance criteria which much be satisfied.

   c. Determine method for deriving standards from performance criteria and available data.

   d. Compute resulting standards.

e. The accessibility impact assessment would also require:

1) Computing accessibility factors under existing and projected capacity conditions, and 2) packaging the technique developed in a form useful to the HSA in their on-going planning efforts.

2. Target Group

The intent to use the resulting standards in appropriateness review would involve the PSRO committee of the Montana Foundation for Medical Care.

3. Locus of Responsibility

The SHPDA should take the lead in initiating the establishment of the committee.

4. Resource Requirements

Manpower: SHPDA Staff .50 FTE

5. Anticipated Result

It is expected that the standards developed would assure quality care at each level of care.

GOAL LEVEL 9.B: TO HAVE ALL WOMEN SEEK PRENATAL SERVICES DURING THE FIRST TRIMESTER OF PREGNANCY.

Rationale: Prenatal care has a positive impact on infant birth weight and also in reducing infant mortality. The availability of prenatal care, particularly to indigent and teenage mothers, through such programs as Handicapped Children Services, Maternal and Infant Projects, and the WIC Nutrition Program should be expanded.

OBJECTIVE 9.B.1:

TO INCREASE THE PERCENTAGE OF HIGH RISK WOMEN INITIATING PRENATAL CARE IN THE FIRST TRIMESTER OF PREGNANCY BY 1982.

RECOMMENDED ACTION 9.B.1.a:

DEVELOP EFFECTIVE MEANS FOR INCREASING THE PROPORTION OF INDIGENT AND TEENAGE WOMEN RECEIVING PRENATAL CARE.

1. Major Milestones

   a. Involve the Public Information Unit to provide statewide media.

   b. Maternal and Child Health Bureau continue to collect and evaluate data.

   c. Maternal and Child Health Bureau analyze data and report findings and recommended actions to SHPDA.

2. Locus of Responsibility

   Ultimate responsibility will rest with the Maternal and Child Health Bureau. However, action on the part of SHPDA could aid the Bureau by encouraging the procurement of funds to support program implementation from legislators and county commissioners.

3. Resource Requirements

Manpower:	SHPDA Staff	.50 FTE
	MCH Staff	.50 FTE

4. Anticipated Impact

   These actions should lay the groundwork for encouraging high risk women to initiate care during the first trimester of pregnancy. Earlier prenatal care should, in turn, significantly improve pregnancy outcomes.

OBJECTIVE 9.B.2:

TO DETERMINE THE NEED FOR INCREASING THE NUMBER OF PROJECTS PROVIDING FULL SERVICE PRE- AND POSTNATAL CARE TO INDIGENT AND TEENAGE WOMEN BY 1984.

RECOMMENDED ACTION 9.B.2.a:

INITIATE PLANNING AND IMPLEMENTATION PROCESSES REQUIRED TO EXPAND FULL SERVICE PRE- AND POSTNATAL CARE PROGRAMS WITH MCH.

1. Major Milestones

   a. Assess the advantages of alternative approaches to providing care (i.e., Handicapped Children Service, Maternal and Infant Project, and WIC Program).

b. Determine the need for and cost of developing full service pre-and postnatal care programs in populated areas not currently offering such services.

c. Identify priority areas (counties) for program implementation.

d. Identify funding sources.

e. Procure funds to support program implementation.

f. Initiate services.

2. Target Groups

Successful completion of the activities associated with this action will require involvement of county health departments, the Family Health Program, and the HSA. Involvement on the part of other health service providers is also desirable.

3. Locus of Responsibility

Early phases of activity will require SHPDA to be the responsible agent through coordination. As activities progress, responsibility will gradually shift to other State and local planning, administrative and operational groups.

4. Resource Requirements

Manpower: SHPDA/MCH Program Staff .50 FTE per year.

Approximately three (3) years will be required to complete steps "a" through "f" above.

5. Anticipated Impact

Successful extension of pre-and postnatal care programs would increase health care accessibility. More importantly, it is believed that these projects will be successful in reducing fetal, perinatal and neonatal death rates as well as various forms of morbidity. The impact of the projects should be greatest among the indigent, teenage, and minority groups.

GOAL LEVEL 9.C.: TO HAVE AT LEAST LEVEL I HOSPITAL OBSTETRIC SERVICES AVAILABLE WITHIN 90 MINUTES DRIVING TIME.

OBJECTIVE 9.C.1:

TO DETERMINE THE DEGREE OF ACCESSIBILITY OF LEVEL I HOSPITAL OBSTETRIC SERVICES.
(RECOMMENDED ACTION FOR OBJECTIVE 8.C.1. INCORPORATED IN RECOMMENDED ACTION 8.A.1.b)

GOAL LEVEL 9.D: TO INCREASE ACCESSIBILITY OF PRE-AND POSTNATAL CARE TO THE MEDICALLY INDIGENT AND HIGH RISK MOTHERS.

Rationale: Reductions in infant mortality will require early initiation of prenatal care, early identification of high risk and referral to appropriate health care management.

OBJECTIVE 9.D.1:

TO ASSESS THE DEGREE TO WHICH OUTREACH AND CASEFINDING SERVICES ARE BEING PROVIDED BY THE MATERNAL AND INFANT PROGRAM AND THEN INCREASE THE LEVEL BY AT LEAST 15 PERCENT BY 1982.
(RECOMMENDED ACTION FOR OBJECTIVE 8.D.1 INCORPORATED IN RECOMMENDED ACTION 8.B.2.a)

GOAL 10: TO ASSURE THE AVAILABILITY AND ACCESSIBILITY OF EDUCATIONAL PROGRAMS AS PART OF THE PRENATAL, CHILDBEARING AND REPRODUCTIVE SERVICES TO ALL WOMEN IN MONTANA REGARDLESS OF EMPLOYMENT STATUS, INCOME, RACE, ETHNICITY, AGE, TYPE OF INSURANCE OR LACK THEREOF, OR PLACE OF RESIDENCE.

GOAL 11: TO EXPAND, COORDINATE, AND INTERPRET THE PRESENT DATA BASE SO AS TO PERMIT THE DETECTION OF PROBLEMS IN AND TO IMPROVE THE PRESENT PROVISION OF PRE- AND POSTNATAL SERVICES, INCLUDING THE FACILITATION OF DECISION-MAKING AND THE ALLOCATION OF RESOURCES, AND TO ASSURE THAT THE DATA COLLECTED IS TREATED SO AS TO PROTECT THE RIGHTS AND PRIVACY OF THE INDIVIDUAL.

GOAL 12: TO ENCOURAGE THAT ALL FORMS OF CURRENT HEALTH INSURANCE, INCLUDING PRIVATE INSURERS, OTHER THIRD-PARTY PROVIDERS, PROVIDE PAYMENT FOR USUAL AND CUSTOMARY COSTS OF PRESENTLY REIMBURSED SERVICES AND TO INCLUDE PAYMENT FOR COST-EFFECTIVE PREVENTION SERVICES

NOTE: For further goals and objectives, see the Statewide Plans at the Department of Health and Environmental Sciences, Bureau of Maternal and Child Health.

MAINTENANCE SERVICES

Maintenance Services are services provided to individuals in need of assistance in activities of daily living or to individuals with chronic physical and mental ill-health conditions in order to prevent deterioration. The general purpose of Maintenance Services is to enable an individual to participate in the community to the fullest degree to which that individual is capable.

Maintenance Services are provided primarily in the home, ambulatory, or long-stay settings. Services in the home setting include home health care, homemaker services, meals on wheels, home dialysis, and adult day care. Those provided in an ambulatory setting include congregate meals and end-stage renal disease treatment. In the long-stay setting, maintenance services include nursing home care, adult congregate living, and foster home care.

Maintenance Services are provided mainly to the elderly, but are not limited to this age group. They also serve any age person who needs home health care; i.e., the developmentally disabled, chronically ill, and any other persons requiring home health care.

It has been only recently that Maintenance Services have expanded much beyond nursing home care or the traditional 24-hour observation and treatment model. With the growing percentage of elderly in the population, new alternatives of enabling them to live in their more familiar and normal environment have been sought and implemented. In addition to contributing to the quality of care, these non-institutional services are deemed to be more cost-effective and are being supported through public financing such as Medicare and sometimes Medicaid.

The first State Health Plan will discuss the services delivered in the home setting and will include SHCC and SHPDA statewide goals, objectives, and recommended actions.

HOME HEALTH CARE SYSTEM

Our purpose for addressing Home Health Care Services in the State Health Plan is to emphasize the need for alternative settings to institutionalized long-term care. The SHPDA is currently involved in a study of alternative settings--and inappropriate placement in nursing homes--and the cost-effectiveness they can provide for services. An overview of the HSP component is discussed in addition to SHCC/SHPDA goals and objectives for this maintenance service.

These new alternatives of enabling individuals to live in a more familiar and normal environment are being studied by the SHPDA in cooperation with the State Department of Social and Rehabilitation Services and the Department of Institutions. It is appropriate for the SHCC and SHPDA to examine more thoroughly the Home Health Care System since these services are usually more cost-effective and because public funds pay for many of these services.

INTRODUCTION

Home Health Care is a Maintenance Service which is designed to provide health and supportive services to patients in their homes and other ambulatory settings. It can also be addressed under Supportive Services and Habilitation and Rehabilitation Services.

Home Health Care can reduce, delay, or prevent hospitalization or placement in a nursing home for persons who can be properly cared for in their own homes. For many patients, it offers a number of psychological benefits such as providing continued dignity and a degree of independency plus maintaining a familiar environment and supportive family relationships.

Some of the services provided are:

...Nursing services

...Home health aide and homemaker services

...Nutritional Guidance

...Occupational Therapy

...Physical Therapy

...Respiratory Therapy

...Speech Therapy

...Medical Social Services

Because these services can generally be provided in the home at a lower cost than in an institutional setting, they can contribute to a reduction in the cost of care, particularly for patients with chronic, subacute, or long-term illnesses, encompassing all age groups, not just the elderly.

SUMMARY ANALYSIS

A home health agency (HHA) is a public or private organization which provides a variety of home health care services. In Montana, all agencies delivering skilled nursing services and one additional therapeutic service in the home require a Certificate of Need (which was mandated by law in April, 1977), before licensure, as outlined in RCM, Section 69-7303.

To be eligible for Medicare reimbursement, an agency must be certified by the Medicare program, as outlined in P.L. 89-97, Section 1861(m). Medicare certification requirements and the State's licensing requirements are the same in Montana; but, licensing does not mean automatic certification. A licensed home health agency must request Medicare certification. (One agency in Montana is licensed but not Medicare certified.) About 62% of the visits made by home health agencies are to Medicare patients and about 57% of their revenue is from the Medicare program. Therefore, Medicare participation is required for most agencies to survive.[1]

Home health agencies can be based in hospitals, long-term care facilities, public health departments, or they can be independent profit or non-profit organizations. Organizational arrangements for services are varied. The agency may provide the services with its own staff or some services may be provided under contract with another provider.

Availability

Home health care in Montana is relative new, beginning about 1967. There are currently 17 licensed HHAs serving the five subareas (see Table 1). Some community health nurses employed by counties offer home nursing services but are not home health agencies.[2]

TABLE 1
LICENSED HOME HEALTH AGENCIES
Montana, 1979

Agency	Location	Area Served
Ravalli County Public Health Nursing	Hamilton	Ravalli County
Missoula City-County Health Department (HHA)	Missoula	A 20-Mile Radius of Missoula and Seeley Lake
Missoula Rehabilitation Center (HHA)	Missoula	Missoula County
Flathead County Home Health Agency	Kalispell	Flathead County
St. Joseph Home Health Care Agency	Polson	Lake County & Surrounding Areas, Hot Springs Area in Sanders County
Lake County Home Health Agency	Polson	Lake County
Montana Deaconess Medical Center Home Health Agency	Great Falls	Metropolitan Great Falls
Columbus Hospital Home Health Agency	Great Falls	Metropolitan Great Falls and Black Eagle
Northern Montana Hospital (HHA)	Havre	Hill and Blaine Counties, Except Rocky Boy and Fort Belknap Indian Reservation
Blackfeet Tribal Home Health Service	Browning	Glacier and Pondera Counties (Not yet operative in total Catchment Area)
Area V Home Health Agency	Anaconda	Deer Lodge, Powell, Beaverhead, and Madison Counties
City-County Home Health Service	Butte	Silver Bow County
West-Mont Community Care, Inc.	Helena	Lewis & Clark, Jefferson, Broadwater Counties
Gallatin County Health Department	Bozeman	Gallatin County
Yellowstone City-County Health Department Visiting Nurse Service	Billings	Yellowstone, Big Horn, Stillwater, Carbon, Golden Valley, and Musselshell Counties
Nursing Care in the Home	Sidney	Richland County
Holy Rosary Hospital Home Health Service	Miles City	Miles City and Custer County with a ten-mile radius of Miles City

Accessibility

By their nature, home health services are accessible because they are provided to a patient in his or her home. Financing, availability, hospital and nursing home occupancy rates and the acceptance by physicians of home health services as an alternative to institutionalization are factors affecting accessibility in any given area of Montana. Home health services are often unavailable in many rural areas because populations are dispersed, thus encountering great distances and travel time problems for agency staffs.[3]

Financing is another major determinant of accessibility in areas where home health services are available. To persons for whom cost is a barrier, the following alternatives are available.

Medicare Plan A - For individuals over the age of 65 or some disabled recipients of Social Security under 65 (after a two-year waiting period), this plan will pay up to 100 home visits per benefit period, or period of illness, provided certain criteria are met. This plan requires the individual to have been institutionalized as a determinant of eligibility.

Medicare Plan B - For individuals already eligible for Plan A, Plan B can provide up to 100 home visits per calendar year in excess of Plan A. It can also cover circumstances for care not preceded by an institutional stay.

Medicaid - Very limited coverage for home health services is available under Medicaid. Coverage is limited in terms of eligibility and in services rendered. Medicaid rates are negotiated annually with each home health agency. Services covered include RN, home health aide, physical therapy, speech therapy, occupational therapy, and equipment.

Private Insurance Plans - Some health insurance plans will cover home health care to some extent. This is not widely the case, however, For the most part, there are very few private insurance plans which cover home health services.

Veterans Administration - The VA provides coverage for home health care which is required as a result of a service-connected disability.

County Tax Monies - In some counties, tax revenues have been budgeted to fund home nursing services.

Workers' Compensation/Automobile Insurance - Workers' Compensation and some automobile insurance firms will underwrite home health care if required as a result of a related injury.

Acceptability

Obtaining physician support and referrals is another problem home health agencies face. Some doctors are

unaware of the program or are unwilling to participate in it. Also, some of the prospective patients appear to associate home health services with welfare services and do not want to become involved.

Cost

In most cases, home health services cost less than institutional care since these services are not provided on a full-time basis nor do they require the substantial investment in facilities and capital equipment required of institutional providers.[4]

Part of the expense involved in home health care in Montana is due to travel costs. The development of home health agencies with satellite units and personnel is encouraged. This provides a greater population base, enabling the agency to provide more comprehensive services and reduce administrative costs.

The valuable psychological benefits of health care in the home cannot be measured monetarily. Some elderly still relate hospitals and nursing homes with fatal illness.

Home health care is a new and developing form of service in Montana. The agencies with larger expenditures have been established longer.

Medicare payments range up to 94% as sources of operating revenue. Medicaid ranges up to 22%; private pay up to 67%; insurance up to 5%; grant funds up to 75.5%; contributions up to 33.6%; other sources up to 50%.[5]

Charges for home health care services vary by provider agency. Nursing services range from $15.00 to $28.50 per visit; homemaker health aide services, $10.00 to $15.00 per hour; physical, occupational and speech therapy, from $10.00 to $30.00 per visit; and medical social services, from $17.50 to $30.00 per visit. Some agencies use a sliding scale based on income for charges. Also some agencies charge by the hour and some by the visit. The following Table shows the licensed Home Health agency expenditures in Montana.

TABLE 2

HOME HEALTH CARE EXPENDITURES
MONTANA 1977-1978

AGENCY	HOME HEALTH EXPENDITURES 1977	1978
Missoula County Health	$48,491.00	$83,542.00
Area V Anaconda	1,873.65	71,598.00
Deaconess (Great Falls)	56,923.00	53,831.00
West-Mont (Helena)	357,975.06	384,471.00
Lake County Home Health	80,200.00	85,161.00
St. Joseph Hospital (Polson)	8,434.00	Not available
Columbus (Great Falls)	28,172.00	Not available
Yellowstone	130,158.00	214,225.00
Butte	190,251.00	295,896.00
Holy Rosary (Miles City)	19,129.31	40,790.00
Sidney	96,017.00	106,417.00
Gallatin County	11,112.00	Not available
Ravalli	Not available	Not available
Browning	Not operational	53,571.00
Havre	Not operational	3,853.00

Source: Home Health Agency Summary 1978, and telephone contacts, Bureau of Health Planning and Resource Development, State Department of Health and Environmental Sciences.

Continuity

Home health care, in lieu of institutionalization, is expanding in Montana with new agencies being started and the expansion of existing agencies to cover larger areas. The establishment of new agencies, if they can be shown to be financially feasible, is being encouraged.

Since home health care is such a new concept, time is needed before data on the experience of home health agencies is available.

CONCLUSIONS

Home health services are a viable, beneficial, and cost effective alternative to institutional care. The determination of how well home health agencies are performing in Montana requires the collection and analysis of service utilization and cost data by the HSA and the SHPDA.

Selected monitoring of health care facilities by PSRO would also be helpful in curbing possible abuses and encouraging physicians to make referrals to home health agencies, where appropriate.

GOALS, OBJECTIVES AND RECOMMENDED ACTIONS

GOAL 13: TO MAKE HOME HEALTH CARE SERVICES AVAILABLE IN AREAS OF THE STATE WHERE THERE IS A DEMONSTRATED NEED.

Rationale: Maintenance services such as home health services are an alternative to institutionalization. Not only is it cost-effective, but it enables individuals to live independently in their own familiar environment. The provision of these services is a necessary part of the health care delivery system. Major problems relate to lack of service availability and accessibility in some areas, inadequate methodologies for determining population-based service need, lack of financial accessibility for many individuals, and wide variance in cost and charges between types of agencies.

OBJECTIVE 13.1:

BY 1982, TO DETERMINE THE STATEWIDE NEED FOR HOME HEALTH SERVICES, AND ALTERNATIVES TO INSTITUTIONALIZATION.

RECOMMENDED ACTION:

CONDUCT A STUDY BY THE SHPDA IN CONJUNCTION WITH PSRO DATA TO FURTHER INVESTIGATE HOME HEALTH CARE ISSUES AND REVISE CURRENT METHODOLOGY FOR NEED DETERMINATION, AS APPROPRIATE.

GOAL 14: HOME HEALTH SERVICES SHOULD BE ACCESSIBLE TO THOSE INDIVIDUALS IN NEED REGARDLESS OF ABILITY TO PAY.

Rationale: As explained in the summary analysis, there are many financial barriers to home health services for many individuals. Briefly these are: Medicare's stringent eligibility criteria, Medicaid's stringent eligibility requirements and low reimbursement, and very minimal coverage by third-party payors.

OBJECTIVE 14.1:

To determine needed changes in the reimbursement structure (State, Federal, and private) for home health services and needed changes in legislation by 1982.

HEALTH SYSTEMS ENABLING SERVICES

Health System Enabling Services are those organized activities designed to influence the means by which, and conditions under which health services are delivered. Examples of enabling services are: health planning, resource development, regulation, research, and financing.

Many changes in the methods and means by which health services are delivered can be attributed to health system enabling services. Health research and resource development have been instrumental in advancing the state of health technology and assuring that the appropriate manpower, facilities, and equipment are available to implement the new technology. Health planning and regulation, on the other hand, work together in an attempt to guarantee that resources are developed appropriately in areas of need. Planning is necessary to determine where needs are, regulation to assure that resource allocation occurs according to the needs set forth in plans.

Of all the health system enabling services, perhaps financing has had the greatest impact on how health care is delivered today. Reimbursement policy, both public and private, has over the years emphasized the delivery of diagnosis and treatment services and health promotion and prevention services have been under-emphasized and under-funded.

OVERVIEW OF HEALTH CARE EXPENDITURES

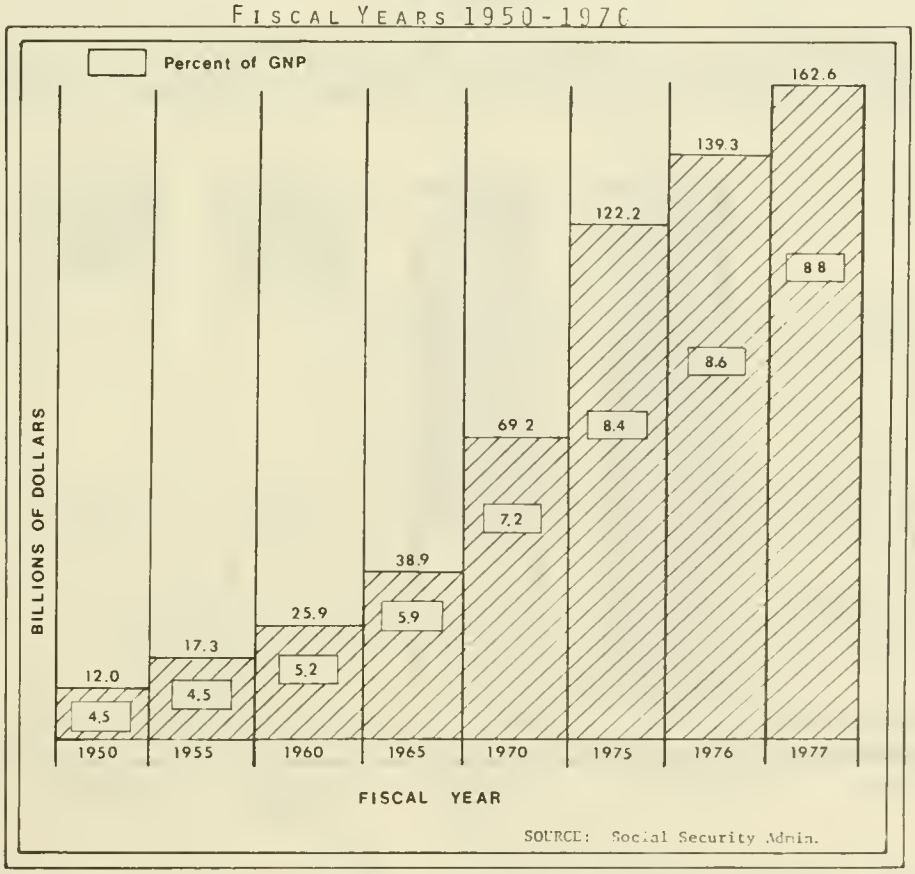
SUMMARY ANALYSIS

Estimated National and State Expenditures:

National health expenditures have increased from $12 billion, or 4.5 percent of the Gross National Product (GNP) in Fiscal Year 1950 to $162.6 billion, or 8.8 percent of GNP in 1977 as shown in the following Figure.

Figure 1

NATIONAL HEALTH EXPENDITURES AND PERCENT OF GNP
FISCAL YEARS 1950-1976



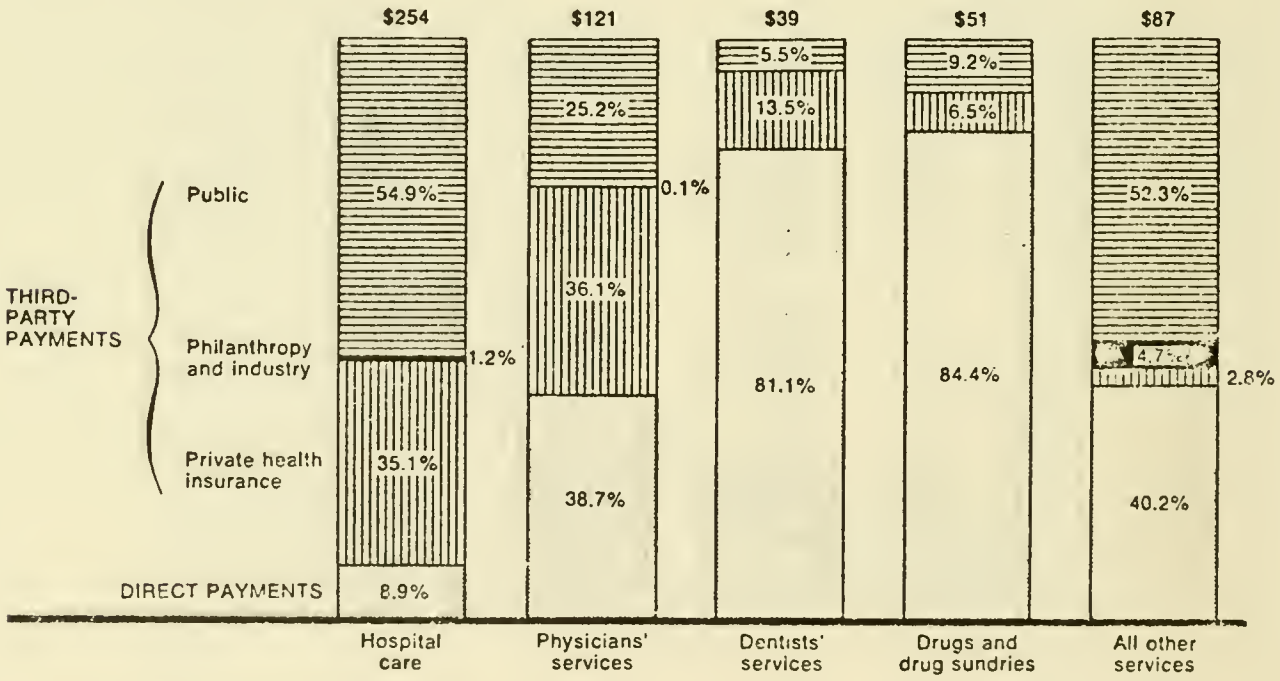
While total health expenditures have risen at an average of 10.1 percent since 1950, they experienced accelerated increases since 1965 with average annual increases of 12.7 percent. Half of this increase has resulted from price increases.

At the same time, a significant feature of the health system, which separates the payment responsibility from the decision to seek care, is the widespread coverage of health expenses by public and private insurance programs. In Fiscal Year 1950, only 31.7 percent of all personal health care expenditures were paid by private health insurance, government programs, and philanthropy; in Fiscal Year 1977, 69.7 percent of health expenditures were covered by third parties. Hospital expenses in particular were almost completely covered by third parties - 94.1 percent of Fiscal Year 1977.

The coverage of medical services by third party payments is very unequal by type of care. It ranges from 94 percent for hospital care to less than 20 percent for dental care, drugs, and drug sundries (Figure 2).

FIGURE 2

PERCENTAGE DISTRIBUTION OF PER CAPITA PERSONAL HEALTH CARE EXPENDITURES, BY TYPE OF EXPENDITURE AND SOURCE OF FUNDS, FISCAL YEAR 1976



Source: National Health Expenditures, Fiscal Year 1976, Social Security Bulletin, April 1977, U.S. Department of Health, Education and Welfare

The aggregate and per capita distribution of funds for the United States is shown in Table 1. The 1976 personal health care expense ($120.4 billion) accounted for 86.4 percent of the U.S. total while research and medical facility construction ($8.3 billion) equaled 6 percent. Expenses for prepayment and administration, and government public health activities made up the remaining 7.6 percent ($10.6 billion).

TABLE 1

AGGREGATE AND PER CAPITA NATIONAL HEALTH EXPENDITURES, BY TYPE OF EXPENDITURE, SELECTED FISCAL YEARS 1960-76

TYPE OF EXPENDITURE	1960	1965	1970	1974[1]	1975[1]	1976[2]
	AGGREGATE AMOUNT (IN MILLIONS)					
Total	$25,856	$38,892	$69,201	$106,321	$122,231	$139,312
Health Services and Supplies	24,162	35,664	64,065	99,330	114,652	131,022
Personal Health Care Expense	22,729	33,498	60,113	91,315	105,745	120,431
Hospital Care	8,499	13,152	25,879	41,020	48,224	55,400
Physicians' Services	5,580	8,405	13,443	19,742	22,925	26,350
Dentists' Services	1,944	2,728	4,473	6,870	7,810	8,600
Other Professional Services	848	989	1,385	1,929	2,190	2,400
Drugs and Drug Sundries	3,591	4,647	7,114	9,416	10,269	11,168
Eyeglasses and Appliances	750	1,151	1,776	1,674	1,785	1,980
Nursing-Home Care	480	1,271	3,818	7,450	9,100	10,600
Other Health Services	1,037	1,155	2,225	3,214	3,442	3,933
Expense for Prepayment and Administration	1,012	1,495	2,515	5,483	5,954	7,336
Government Public Health Activities	401	671	1,495	2,531	2,953	3,255
Research and Medical-Facilities Construction	1,694	3,228	5,137	6,991	7,579	8,290
Research	592	1,391	1,846	2,527	2,942	3,327
Construction	1,102	1,837	3,291	4,464	4,637	4,963
	PER CAPITA AMOUNT[3]					
Total	$141.63	$197.75	$333.57	$495.01	$564.35	$637.97
Health Services and Supplies	132.35	181.34	308.81	462.46	529.36	600.01
Personal Health Care Expense	124.50	170.32	289.76	425.15	488.23	551.50
Hospital Care	46.56	66.87	124.74	190.98	222.66	253.70
Physicians' Services	30.57	42.74	64.80	91.92	105.85	120.67
Dentists' Services	10.65	13.87	21.56	31.99	36.06	39.38
Other Professional Services	4.65	5.03	6.68	8.98	10.11	10.99
Drugs and Drug Sundries	19.67	23.63	34.29	43.84	47.41	51.14
Eyeglasses and Appliances	4.11	5.85	8.56	7.79	8.24	9.07
Nursing-Home Care	2.63	6.46	18.40	34.69	42.02	48.54
Other Health Services	5.66	5.87	10.73	14.96	15.89	18.01
Expense for Prepayment and Administration	5.66	7.61	12.12	25.53	27.49	33.59
Government Public Health Activities	2.19	3.41	6.93	11.79	13.63	14.91
Research and Medical-Facilities Construction	9.28	16.41	24.76	32.55	34.99	37.96
Research	3.21	7.07	8.90	11.77	13.58	15.24
Construction	6.04	9.34	15.86	20.78	21.41	22.73

[1]Revised estimates
[2]Preliminary estimates
[3]Based on January 1 data from the Bureau of the Census for total U.S.

Source: National Health Expenditures, Fiscal Year 1976, from Social Security Bulletin, April 1977, U.S. Department of Health, Education, and Welfare, p. 15.

Estimate of Health Care Expenditures in Montana:

National data show an average 1977 expenditure of $737 per capita, $142.5 billion of which 87.6% is for personal health care. It is that $142.5 billion which pays for short and long-term care, physicians, dentists and other professional services, drugs, sundries, and appliances. The Montana 1977 population estimate is 761,000, which would result in an unadjusted population-based health care expenditure total of $560,857,000. Given the age structure of Montana's population, this figure can only serve as the upper bound to an estimate of State health care expenditures.

Between fiscal years 1967 and 1976, annual personal health care expenditures per person rose 169% from $205 to $552. The greatest increases were for persons 65 years of age and older. The amount of money spent in health care increases sharply with age. Per capita expenditures for the elderly in 1976 were almost three times higher than that for persons 19 to 64 years of age, and more than six times higher than for persons under nineteen. In dollar terms, this means an annual 1976 average of $1,521 for the 65+ group, $547 for the 19-64, and $249 for the under nineteen age group. In terms of the Montana 1977 age distribution, this formula calculates to an estimated $415.9 million annual health care expenditure.

Figure 3

PER CAPITA PERSONAL HEALTH CARE EXPENDITURES
BY AGE AND TYPE OF EXPENDITURE
FISCAL YEARS 1967 AND 1976

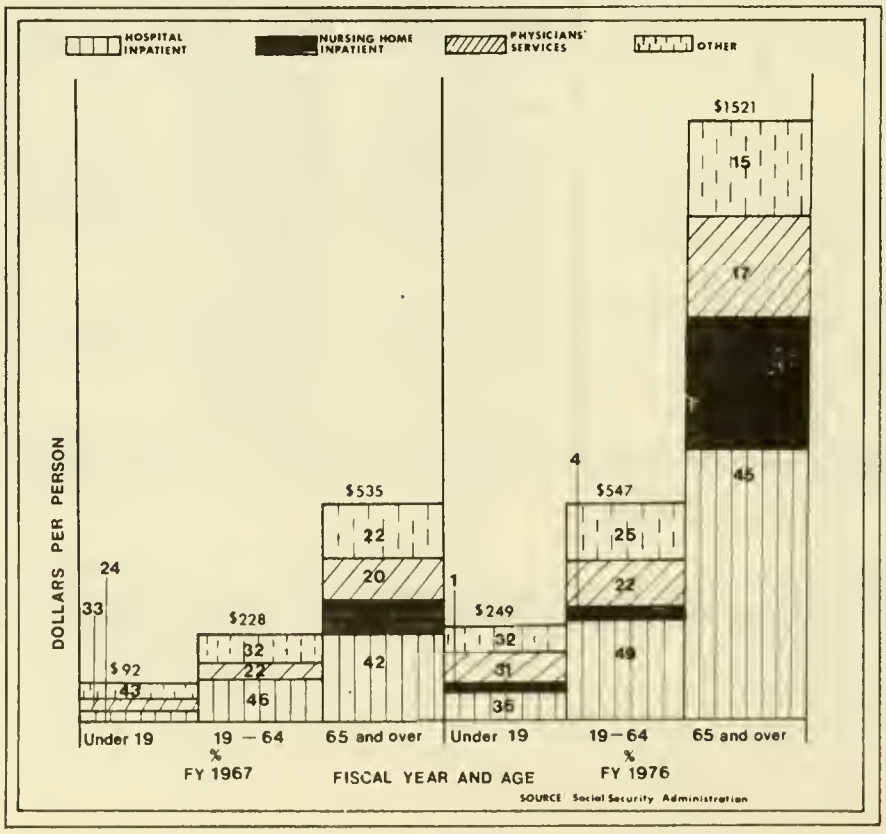


TABLE 2

ESTIMATE OF MONTANA PERSONAL HEALTH
EXPENDITURES BY AGE GROUP, 1977

Age Group	Av. Annual Health Expenditure	Montana Population		Total Expenditures	
		Number	Percent	Dollars	Percent
Under 19	249	250,218	32.8%	62,304,282	14.9%
19-64	547	434,633	57.1%	237,744,251	57.2%
65+	1,521	76,149	10.0%	115,822,629	27.9%
Total	552	761,000	100.0%	415,871,162	100.0%

Source of Funds:

National data indicate a wide variation in the sources of funds for personal health services. Consumers and private insurance pays the majority of professional fees, drugs, and eye glasses, whereas most of the expenditures for hospitals and nursing home care are assumed by the public, as shown in the following Table.

TABLE 3

U.S. PERSONAL HEALTH EXPENDITURE
BY SOURCE OF FUND AND TYPE OF EXPENDITURE
1976 - (In Billion)

Type of Expenditure By Service	Source of Funds		Total
	Public	Private	
Hospital Care	$30.4	$25.0	$55.4
Nursing Home Care	5.9	4.7	10.6
Physicians' Services	6.9	19.7	26.3
Dentists' Services	.5	8.1	8.6
Other Prof. Services	.8	1.6	2.4
Eyeglasses & Appliances	.1	1.9	2.0
Drugs & Sundries	1.0	10.1	11.1
Other Health Services	3.1	.8	3.9
Total	48.4	72.0	120.4

SOURCE: National Health Expenditures, FY 1976, Social Security Bulletin, 1977

Analysis of Montana's personal health care expenditures indicates the following as depicted in Table 3.

...The Medicare program finances about 11 percent of Montana's total estimated personal health care expenditures. This compares to about 14 percent nationwide.

...The Medicaid program finances about 7.5 percent of Montana's total estimated personal health care expenditures. Medicaid, a federally-assisted program operated by States under Federal guidelines, provides medical services and improves access to medical care for certain low income populations. While Federal and State Governments jointly finance the program, each State determines benefits, eligibility criteria, and rates of payment. The percent of personal health care expenditures paid by the Federal Government has been rising steadily each year since the enactment of Medicare and Medicaid, reaching 28 percent in 1977. However, the percent contributed by State and local governments has remained fairly constant at about 12 percent each year since the mid-1930's.

...Consumers pay about 27.9 percent while contracted third party payors pay about 23.7 percent of the Montana total extimated personal health care expenditures.

TABLE 4

HEALTH CARE EXPENDITURES BY SOURCE
U.S. AND MONTANA
1976
(In Millions)

	AGGREGATE AMOUNT			
	U.S.		Montana	
Source	Dollars	% of Total	Dollars	% of Total
Direct Payment	42,274	50.6	149.24	52.2
Health Care Contractors Commercial Ins.	39,299	46.0	126.54	44.3
Philanthropy & Industry [b]	2,891	3.4	9.95	3.5
Total Private	85,464	100.0	285.73	100.0
Medicaid	9,181	14.5	40.03	16.1
Medicare	20,770	32.9	60.13	24.2
Workers Comp. [c]	2,125	3.4	8.10	3.3
State Hospitals	N/A	- -	27.30	11.0
Federal Hospital	N/A	- -	20.50	8.3
General Hospital & Medical	29,427	46.6	123.50	49.8
Other Public Health	3,729	5.9	11.20	4.5
Total Public	63,107	100.0	248.20 [d]	100.0
TOTAL	148,571	100.0	533.93	100.0

a. 1976 U.S. Population = 218,338,558; 1977 U.S. Population 220,660,787; 1977 Montana Population = 761,000 (Bureau of Business & Economic Research)

b. There is no actual figure available for total source of funds from philanthropy and industry in Montana.

c. Workers' Comp. figures do not include expenses for administration. Sums may not total because of rounding.

d. Does not sum to total since some, but not all, duplicate funds (Medicare/Medicaid hospital payments) have been subtracted from the total hospital revenue figure of 123,501,825.

e. The Montana figure may be an overestimate due to some duplication in figures. Also, cost figures for Medicare / Medicaid are actual expenditures and are accurate for the period and source reported.

Comparing Montana to the rest of the United States, Montana ranks 41st in the nation for total Federal funds obligated and ranks 9th in per capita Federal obligations. (See Table 5.)

TABLE 5

GEOGRAPHIC DISTRIBUTION OF STATE AND FEDERAL FUNDS AND PER CAPITA FEDERAL FUNDS

State	Millions	Percent	Rank	Dollars	Rank
Alabama	6,127	1.5	21	1,695	33
Alaska	1,545	.4	44	4,389	2
Arizona	4,506	1.1	28	2,026	15
Arkansas	3,289	.8	34	1,564	42
California	47,195	11.9	1	2,233	10
Colorado	5,228	1.3	26	2,063	12
Connecticut	5,921	1.5	23	1,913	21
Delaware	890	.2	49	1,538	43
District of Columbia	11,510	2.9	10	16,075	1
Florida	15,457	3.9	6	1,852	25
Georgia	8,767	2.2	16	1,780	28
Hawaii	2,066	.5	39	2,388	6
Idaho	1,689	.4	42	2,067	14
Illinois	17,337	4.4	5	1,556	41
Indiana	6,649	1.7	19	1,252	51
Iowa	3,671	.9	33	1,279	50
Kansas	4,215	1.1	30	1,859	24
Kentucky	5,902	1.5	24	1,738	31
Louisiana	5,478	1.4	25	1,445	45
Maine	1,910	.5	40	1,804	27
Maryland	9,875	2.5	13	2,410	5
Massachusetts	11,462	2.9	11	1,970	18
Michigan	12,308	3.1	8	1,344	48
Minnesota	6,147	1.6	20	1,566	40
Mississippi	4,048	1.0	31	1,725	32
Missouri	9,809	2.5	14	2,059	13
Montana	1,691	.4	41	2,261	9
Nebraska	2,458	.6	37	1,594	39
Nevada	1,184	.3	48	2,000	16
New Hampshire	1,426	.4	47	1,743	30
New Jersey	11,166	2.8	12	1,526	44
New Mexico	3,068	.8	35	2,675	3
New York	33,992	8.6	2	1,876	23
North Carolina	7,872	2.0	18	1,444	46
North Dakota	1,476	.4	45	2,318	8
Ohio	14,641	3.7	7	1,361	47
Oklahoma	5,156	1.3	27	1,901	22
Oregon	3,836	1.0	32	1,676	34
Pennsylvania	19,205	4.9	4	1,624	37
Rhode Island	1,629	.4	43	1,758	29
South Carolina	4,498	1.1	29	1,596	38
South Dakota	1,429	.4	46	2,092	11
Tennessee	8,218	2.1	17	1,962	19
Texas	20,196	5.1	3	1,651	35
Utah	2,383	.6	38	1,976	17
Vermont	872	.2	50	1,851	26
Virginia	11,783	3.0	9	2,373	7
Washington	8,879	2.2	15	2,503	4
West Virginia	2,942	.7	36	1,632	36
Wisconsin	6,027	1.5	22	1,309	49
Wyoming	729	.2	51	1,949	20

SOURCE: The Geographic Distribution of Federal Funds in Montana.

As Table 6 indicates, the Federal government estimates that $97,154,000 in Federal funds are obligated in Montana for health programs.

TABLE 6

FEDERAL FUNDS OBLIGATED IN MONTANA

1977

Federal Obligations	(Millions of Dollars)
Health	4,848
Health Care Services	88,458
Health Research & Education	488
Prevention and Control of Health Problems	2,152
Health Planning and Construction	1,208
Total	97,154

The Federal funds reported indicate obligated funds rather than expenditures. Obligated funds are funds that are allocated but not necessarily expended, the difference, however, is usually not significant. Also, these obligations are only for the executive branch - not the legislative and judicial branches of government.

Quite evidently, the Federal government obligates a considerable amount of funds for Montana - both for Federal funds in general and also for health. For comparison in FY 1977, the Federal government generally obligated 395.6 billion dollars nationwide, of which Montana received 1.6 billion dollars and of which 97.1 million was for health. (See Table 5)

In addition to the Federal government, the State government of Montana also expended an estimated 39.2 million for health. (See Table 7)

TABLE 7

PROPOSED BUDGET SUMMARY FOR HEALTH RELATED SERVICES

MONTANA STATE GOVERNMENT

(by Department and Division)

1979
(In Millions)

Department/Division	State	Fees/ Local/ Third Party	
Dept. Health & Env. Sci.			
Central Services Div.	$ 416,113	$	
Environmental Sciences Div.	695,208	374,700	
Health Services Div.	815,206	22,000	
Hospital & Medical Facilities	344,317		
Laboratory Division	- -		
Legal Division	27,109		
Board of Health	5,000		
Dept. of Institutions			
Alcohol & Drug Abuse Div.	413,367		
Mental Health & Res. Serv.	27,868,212		
Dept. of Labor & Industry			
Safety & Health	631,372		
Office of Public Instruction			
Basic Instructional Serv.	7,000		
Dept. of Social & Rehab. Serv.			
Community Services Div.	1,505,225	1,256,506	
Developmental Disabilities Div.	4,903,200		
	$37,631,329	$1,653,206	
Total $39,284,535			

These figures represent expenditures for special State government programs either directly or indirectly related to health. Such items as Medicaid are reported elsewhere.

Use of Funds:

An overall breakdown of personal health care fund usage in 1976 is given in Table 3. This shows that hospital care accounts for the largest share of the total health dollar. The next largest category is physicians' services.

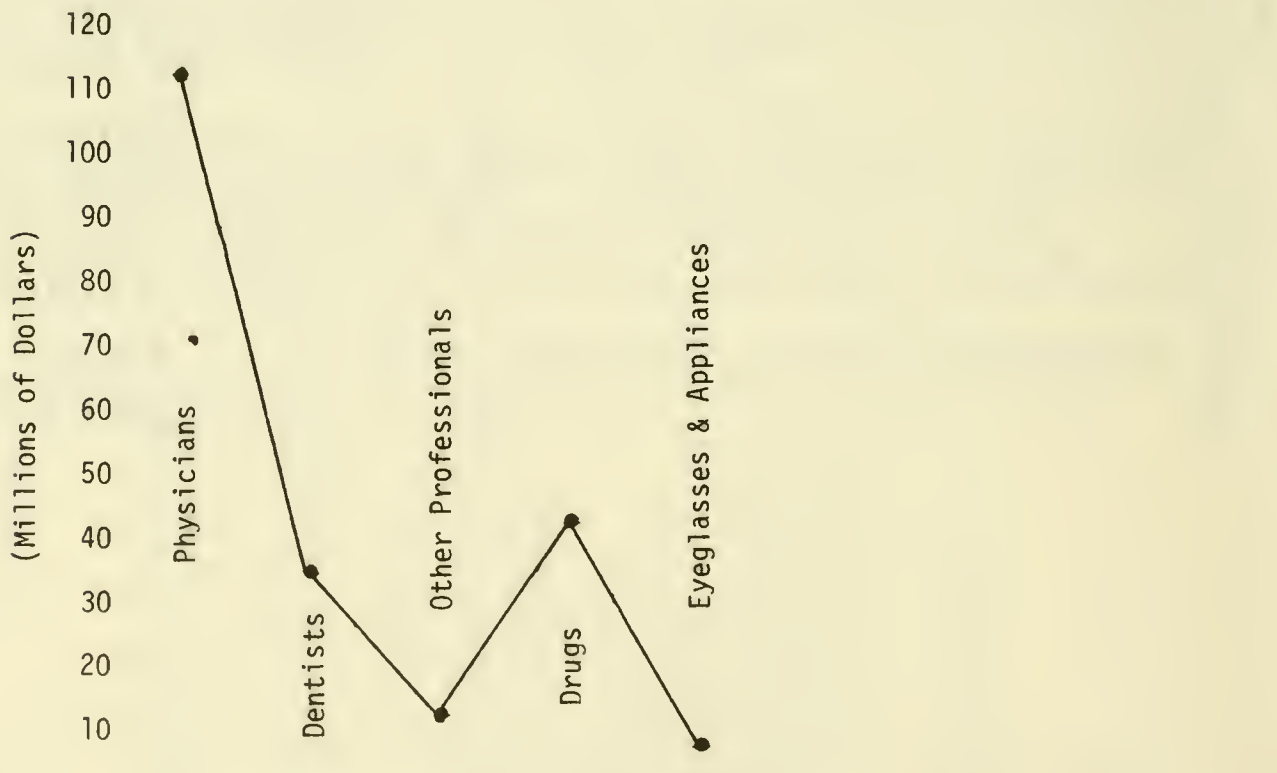
Two of the largest categories of institutional care, hospitals and nursing homes, account for over 50 percent of the personal health care dollar. It should be further noted that government controls over one-half of these expenditures.

There is no comprehensive data source for hospital and nursing home expenditures in Montana.

The following Figure estimates personal health care expenditures in Montana based on national averages.

FIGURE 4

FUNDS EXPENDED BY SPECIFIC SERVICE
MONTANA, 1977



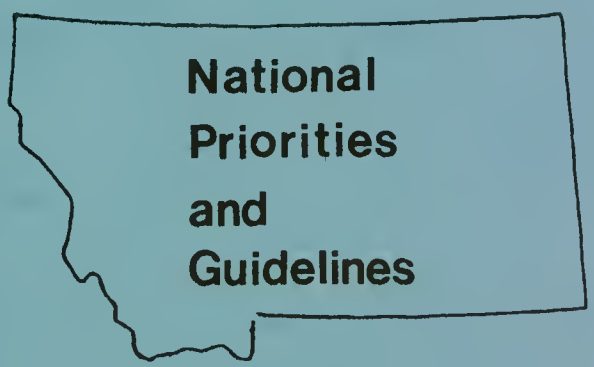
(Total 206,976,780* These are synthetic estimates based upon national averag

CONCLUSION

During the past 25 years, national and State health expenditures have increased, not only in aggregate terms and on a per capita basis, but also by a percentage of the Gross National Product.

A number of explanations have been offered for the inflationary trend in health care costs over the years. For example, it has been argued that spiraling costs are attributable to increases in the demand for hospital care and the general lack of sufficient incentives to help restrain the cost and excess of services provided to patients. Excessive hospital beds, expensive medical technology, service duplication, and cost-based reimbursement mechanisms have also been cited as contributors to the inflation of health care costs.

In the health expenditure analysis, an attempt was made to simply provide a health care expenditure information base. This information base is the first step in the development for State health care cost containment.



National Priorities and Guidelines

NATIONAL HEALTH PRIORITIES AND NATIONAL HEALTH POLICY GUIDELINES

The Federal Guidelines for State Health Plan Development state that the National Health Priorities, Section 1502 of PL 93-641, and the National Health Policy Planning Guidelines should receive appropriate consideration in the State Health Plan. In areas where the Plan omits and/or differs from the National Priorities and Guidelines, the SHP should indicate the reason for those variances.

According to HEW Secretary, Joseph A. Califano, "the guidelines provide the planning agencies with the basis to act forcefully in controlling excess capacity in the health care industry ... At the same time the Guidelines include provisions under which planning agencies can make adjustments for exceptional circumstances in an area so that needed services are not jeopardized."

The only portion of the Montana SHP which is at variance with the National Guidelines is the area of neonatal intensive care beds. The Health Systems Plan also supports this variance.

The following Tables show the relationship between the Montana goals and objectives and the National Priorities and Guidelines. The blank spaces in the second column denote the limitations of the plan development process and points to future planning needs. Not all health status and health systems can be addressed simultaneously due to the lack of personnel resources as well as data limitations.

More time can be spent in future years analyzing and incorporating the remaining areas of national and state concern until the full complement of priorities and guidelines is realized. The Health Systems Plan does address priority and guideline areas which are not included in these Tables.

In general, the National Health Policy Planning Guidelines are felt to be applicable for review of health services in Montana.

TABLE 1
NATIONAL HEALTH PRIORITIES

National Health Priorities	Related SHP Goals and Objectives
1. The provision of primary care services for medically underserved populations, especially those which are located in rural or economically depressed areas.	Goal 9 (Level B) Objective 9.B.1, 9.B.2, 9.C.1 Goal 14, Objective 14.1
2. The development of multi-institutional systems for coordination or consolidation of institutional health services (including obstetric, pediatric, emergency medical, intensive and coronary care, and radiation therapy services).	Goal 9 (Level A) Objective 9.A.1
3. The development of medical group practices (especially those whose services are appropriately coordinated or integrated with institutional health services), health maintenance organizations, and other organized systems for the provision of health care.	
4. The training and increased utilization of physician assistance, especially nurse clinicians.	
5. The development of multi-institutional arrangements for the sharing of support services necessary to all health service institutions.	
6. The promotion of activities to achieve needed improvements in the quality of health services, including needs identified by the review activities of Professional Standards Review Organizations under part B of title XI of the Social Security Act.	Goal 2 Goal 7, Objective 7.1, 7.2 Goal 9 (Level A) Objective 9.A.1 Goal 13, Objective 13.1
7. The development by health service institutions of the capacity to provide various levels of care (including intensive care, acute general care, and extended care) on a geographically integrated basis.	Goal 9 (Level C&D) Objective 9.C.1, 9.D.1
8. The promotion of activities for the prevention of disease, including studies of nutritional and environmental factors affecting health and the provision of preventive health care services.	Goal 5 (Levels A&B) Objectives 5.A.1, 5.B.1 5.C.1 Goal 9 (Levels B&C) Objectives 9.B.1, 9.B.2 Goal 10 Goal 11
9. The adoption of uniform cost accounting, simplified reimbursement, and utilization reporting systems and improved management procedures for health service institutions.	Goal 6 (Levels A&B) Objectives 6.B.1, 6.B.2
10. The development of effective methods of educating the general public concerning proper personal (including preventive) health care and methods for effective use of available health services.	Goal 5 (Levels A&B) Objectives 5.A.1, 5.B.1, 5.C.1 Goal 7, Objectives 7.1, 7.2 Goal 10

TABLE 2

National Health Policy Planning Guidelines	Related SHP Goals & Objectives
1) There should be less than four non-Federal, short-stay hospital beds for each 1,000 persons in a health service area except under extraordinary circumstances.	
2) There should be an average annual occupancy rate for medically necessary hospital care of at least 80 percent for all non-Federal, short-stay hospital beds considered together in a health service area, except under extraordinary circumstances.	
3) A) Obstetrical services should be planned on a regional basis with linkages among all obstetrical services and with neonatal services.	Goal 9 (Levels A-C) Objectives 9.A.1, 9.C.1
B) Hospitals providing care for complicated obstetrical problems (Levels II and III) should have at least 1,500 births annually.	
C) There should be an average annual occupancy rate of at least 75 percent in each unit with more than 1,500 births per year.	
4) A) Neonatal services should be planned on a regional basis with linkages with obstetrical services.	Goal 9 (Levels A-C) Objectives 9.A.1
B) The total number of neonatal intensive and intermediate care beds should not exceed 4 per 1,000 live births per year in a defined neonatal service area.	
C) A single neonatal special care unit (Level II or III) should contain a minimum of 15 beds.	
5) There should be a minimum of 20 beds in a pediatric unit in urbanized areas.	
6) Pediatric units should maintain average annual occupancy rates related to the number of pediatric beds (exclusive of neonatal special care units) in the facility.	
7) A) There should be a minimum of 200 open-heart procedures performed annually, within three years after initiation in any institution in which open-heart surgery is performed for adults.	
B) There should be a minimum of 100 pediatric heart operations annually within three years after initiation, in any institution in which pediatric open-heart surgery is performed, of which at least 75 should be open-heart surgery.	

TABLE 2
(Continued)

National Health Policy Planning Guidelines	Related SHP Goals & Objectives
C) There should be no additional open-heart units initiated unless each existing unit in the health service area(s) is operating and is expected to continue to operate at a minimum of 350 open-heart surgery cases per year in adult services or 130 pediatric open-heart cases in pediatric services.	
8) A) There should be a minimum of 300 cardiac catheterizations, of which at least 200 should be intracardiac or coronary artery catheterizations, performed annually in any adult cardiac catheterization unit within three years after initiation.	
B) There should be a minimum of 150 pediatric cardiac catheterizations performed annually in any unit performing pediatric cardiac catheterizations within three years after initiation.	
C) There should be no new cardiac catheterization unit opened in any facility not performing open-heart surgery.	
D) There should be no additional adult cardiac catheterization unit opened unless the number of studies per year in each existing unit in the health service area(s) is greater than 500 and no additional pediatric unit opened unless the number of studies per year in each existing unit is greater than 250.	
9) A) A megavoltage radiation therapy unit should serve a population of at least 150,000 persons and treat at least 300 cancer cases annually, within three years after initiation.	
B) There should be no addditional megavoltage units opened unless each existing megavoltage unit in the health service area(s) is performing at least 6,000 treatments per year.	
10) A) A Computerized Tomographic Scanner (head and body) should operate at a minimum of 2,500 medically necessary patient procedures per year, for the second year of its operating and thereafter.	
B) There should be no additional scanners approved unless each existing scanner in the health service area is performing at a rate greater than 2,500 medically necessary patient procedures per year.	
C) There should be no additional scanners approved unless the operators of the proposed equipment will set in place data collection and utilization review systems.	

TABLE 2
(Continued)

National Health Policy Planning Guidelines	Related SHP Goals & Objectives
11) The Health Systems Plans established by the HSAs should be consistent with standards and procedures contained in the OHEW regulations governing conditions for coverage of suppliers of end-stage renal disease services, 20 CFR, Part 405, Subpart U.	

Appendix

APPENDIX I

FOOTNOTES

APPENDIX I

FOOTNOTES

PROFILE OF MONTANA

[1]Montana Department of Community Affairs, Montana Population Projections 1975 - 2000, August, 1977.

[2]Ibid

[3]Ibid

[4]U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the U.S., 1978.

[5]U.S. Department of Commerce, Bureau of the Census, 1971 Annual Statistical Supplement.

[6]Montana Department of Social and Rehabilitation Services, Bureau of Statistics and Research, Statistical Report, August, 1978.

[7]Ibid

[8]Montana Department of Labor and Industry, Division of Employment Security, Statewide Industry/Occupational Projections, 1985, 1977.

HEALTH STATUS

Communicable and Infectious Diseases

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APPENDIX II

COMPONENT CRITERIA

1970 POPULATION
and
1975 & 1985 POPULATION PROJECTIONS BY AGE GROUP & COUNTY
EASTERN MONTANA (Region I)

	TOTAL POPULATION			AGE 0 - 4		AGE 5 - 17		AGE 18 - 64		AGE 65 +	
COUNTY	1970	1975	1985	1975	1985	1975	1985	1975	1985	1975	1985
Carter	1,956	1,900	1,882	137	142	433	361	1,059	1,120	271	259
Custer	12,174	12,000	14,642	917	1,212	2,992	3,006	6,593	8,625	1,498	1,799
Daniels	3,083	3,100	3,143	214	259	729	600	1,699	1,808	458	476
Dawson	11,269	10,700	13,067	937	1,156	2,822	2,757	5,954	7,868	987	1,286
Fallon	4,050	4,000	4,326	342	390	1,049	915	2,206	2,549	403	472
Garfield	1,796	1,700	1,784	140	139	410	352	982	1,072	168	221
McCone	2,875	2,700	2,613	211	201	710	532	1,488	1,552	291	328
Phillips	5,386	5,400	5,757	435	471	1,417	1,243	2,830	3,302	718	741
Powder River	2,862	2,400	2,285	207	174	666	499	1,331	1,406	196	206
Prairie	1,752	1,900	1,915	123	140	408	352	1,077	1,092	292	331
Richland	9,837	9,900	12,093	797	998	2,596	2,585	5,407	7,094	1,110	1,416
Roosevelt	10,365	10,300	11,272	1,013	1,005	2,883	2,711	5,399	6,412	1,005	1,144
Rosebud	6,032	9,700	11,230	943	931	2,680	2,809	5,168	6,531	909	959
Sheridan	5,779	5,400	5,144	371	382	1,383	1,011	2,931	2,946	715	805
Treasure	1,069	1,200	1,236	94	105	318	272	653	721	135	138
Valley	11,471	13,200	16,325	1,160	1,391	3,700	3,935	7,297	9,858	1,043	1,141
Wibaux	1,465	1,500	1,538	121	135	386	319	806	892	187	192
TOTALS	93,221	97,000	110,252	8,162	9,231	25,582	24,259	52,880	64,848	10,386	11,914

SOURCE: Montana Population Projections 1975 - 2000, Division of Research & Information Systems, Montana Department of Community Affairs, August, 1977. (Medium Series)

1970 POPULATION
and
1975 & 1985 POPULATION PROJECTIONS BY AGE GROUP & COUNTY
NORTH CENTRAL MONTANA (Region II)

	TOTAL POPULATION			AGE 0 - 4		AGE 5 - 17		AGE 18 - 64		AGE 65 +	
COUNTY	1970	1975	1985	1975	1985	1975	1985	1975	1985	1975	1985
Blaine	6,727	6,800	7,191	617	631	1,827	1,639	3,603	4,191	753	730
Cascade	81,804	83,900	88,274	7,668	8,195	21,061	19,503	47,921	52,875	7,250	7,701
Chouteau	6,473	6,300	6,491	496	551	1,540	1,314	3,503	3,845	761	781
Glacier	10,783	11,100	11,961	1,188	1,041	3,361	3,142	5,635	6,631	916	1,147
Hill	17,358	17,900	19,641	1,552	1,694	4,392	4,046	10,389	11,960	1,567	1,941
Liberty	2,359	2,500	2,697	190	228	671	562	1,421	1,636	218	271
Pondera	6,611	6,900	7,462	583	647	1,868	1,673	3,718	4,329	731	813
Teton	6,116	6,500	7,875	458	610	1,659	1,710	3,582	4,621	801	934
Toole	5,839	5,400	5,174	398	412	1,416	1,079	2,994	3,048	592	635
TOTALS	144,070	147,300	156,766	13,150	14,009	37,795	34,668	82,766	93,136	13,589	14,953

SOURCE: Montana Population Projections 1975 - 2000, Division of Research & Information Systems, Montana Department of Community Affairs, August, 1977. (Medium Series)

1970 POPULATION
and
1975 & 1985 POPULATION PROJECTIONS BY AGE GROUP & COUNTY
SOUTH CENTRAL MONTANA (Region III)

	TOTAL POPULATION			AGE 0 - 4		AGE 5 - 17		AGE 18 - 64		AGE 65 +	
COUNTY	1970	1975	1985	1975	1985	1975	1985	1975	1985	1975	1985
Big Horn	10,057	10,900	12,161	1,221	1,055	3,138	3,162	5,780	7,053	761	891
Carbon	7,080	7,800	8,889	495	672	1,734	1,796	4,213	5,010	1,358	1,411
Fergus	12,611	13,000	13,617	927	1,040	3,232	2,705	6,892	7,811	1,949	2,061
Golden Valley	931	900	917	59	70	188	160	510	534	143	153
Judith Basin	2,667	2,700	2,745	193	233	646	531	1,445	1,530	416	451
Musselshell	3,734	4,200	4,796	297	373	963	1,008	2,292	2,761	648	654
Petroleum	675	700	678	48	50	178	144	425	435	49	49
Stillwater	4,632	5,200	6,090	351	472	1,231	1,290	2,874	3,533	744	795
Sweet Grass	2,980	3,000	2,897	210	221	630	540	1,628	1,657	532	479
Wheatland	2,529	2,400	1,923	165	126	557	347	1,309	1,096	369	354
Yellowstone	87,367	97,000	126,106	7,936	10,456	24,383	28,134	56,961	76,914	8,020	10,602
TOTALS	135,263	148,100	180,819	11,902	14,768	36,880	39,817	84,329	108,334	14,989	17,900

SOURCE: Montana Population Projections 1975 - 2000, Division of Research & Information Systems, Montana Department of Community Affairs, August, 1977. (Medium Series)

1970 POPULATION
and
1975 & 1985 POPULATION PROJECTIONS BY AGE GROUP & COUNTY
SOUTHWESTERN MONTANA (Region IV)

	TOTAL POPULATION			AGE 0 - 4		AGE 5 - 17		AGE 18 - 64		AGE 65 +	
COUNTY	1970	1975	1985	1975	1985	1975	1985	1975	1985	1975	1985
Beaverhead	8,187	8,300	9,095	699	868	1,849	1,798	4,862	5,485	890	944
Broadwater	2,526	2,800	3,428	206	287	732	771	1,524	2,002	338	368
Deer Lodge	15,652	15,200	15,482	1,144	1,245	3,482	2,991	8,630	9,071	1,944	2,175
Gallatin	32,505	37,300	44,058	2,851	3,527	7,128	7,342	24,304	29,510	3,017	3,679
Granite	2,737	2,700	2,801	206	236	638	564	1,528	1,600	328	401
Jefferson	5,238	6,700	8,169	539	684	1,724	1,869	3,844	4,948	593	668
Lewis & Clark	33,281	36,900	46,931	3,008	3,865	9,247	10,526	21,020	28,090	3,625	4,450
Madison	5,014	5,800	5,556	396	422	1,367	1,072	3,163	3,223	874	339
Meagher	2,122	2,300	2,216	174	173	527	429	1,327	1,326	272	288
Park	11,197	12,100	14,590	839	1,143	2,778	3,088	6,768	8,472	1,715	1,887
Powell	6,660	7,500	9,015	568	729	1,865	1,983	4,373	5,571	694	732
Silver Bow	41,981	43,000	44,457	3,422	3,581	10,618	9,335	23,847	26,555	5,113	4,986
TOTALS	167,100	180,600	205,798	14,052	16,760	41,955	41,768	105,190	125,853	19,403	21,417

SOURCE: Montana Population Projections 1975 - 2000 Division of Research & Information Systems, Montana Department of Community Affairs, August, 1977. (Medium Series)

1970 POPULATION
and
1975 & 1985 POPULATION PROJECTIONS BY AGE GROUP & COUNTY
NORTHWESTERN MONTANA (Region V)

	TOTAL POPULATION			AGE 0 - 4		AGE 5 - 17		AGE 18 - 64		AGE 65 +	
COUNTY	1970	1975	1985	1975	1985	1975	1985	1975	1985	1975	1985
Flathead	39,460	44,600	56,402	3,611	4,679	11,754	12,791	24,640	33,309	4,595	5,623
Lake	14,445	17,100	19,876	1,425	1,603	4,434	4,551	8,906	11,210	2,335	2,512
Lincoln	18,063	16,500	16,589	1,433	1,285	4,587	3,634	9,334	10,108	1,146	1,562
Mineral	2,958	3,500	4,325	295	373	972	1,036	1,967	2,610	266	306
Missoula	58,263	64,600	78,171	5,106	6,240	14,317	14,404	40,199	51,370	4,978	6,157
Ravalli	14,409	18,400	21,142	1,321	1,630	4,532	4,483	9,728	11,886	2,828	3,143
Sanders	7,093	8,100	9,588	615	750	2,061	2,141	4,350	5,539	1,074	1,158
TOTALS	154,691	172,800	206,093	13,806	16,560	42,648	43,040	99,124	126,032	17,222	20,461

SOURCE: Montana Population Projections 1975 - 2000, Division of Research & Information Systems, Montana Department of Community Affairs, August, 1977. (Medium Series)

HEALTH EDUCATION SERVICES
PROVIDED BY STATE AGENCIES

Agency	Services	Nature of Service (Preventive/ Remedial)	Estimated Service Budget (FY78)	Target Population for Service	No. of Persons Served in 1978	Estimate of Unmet Need	Staff Time Devoted to Service	Total Staff for Agency	Laws Requiring Health Ed.
Public Info. Unit	Immunizations	Preventive	$ 4,200	Parents of Children less than 15 yrs of age.	N/A	N/A	50% of 1 FTE Professional	1 FTE Professional	Laws requiring public notice
	Health & Env. Sciences	N/A	N/A	N/A	N/A	N/A	N/A	1 FTE Secretarial	
Planning & Evaluation Unit (Hlth. Ed Bureau)	Health Ed. Advocacy	N/A	-0-	Professional & Staff Personnel	N/A	N/A	Less than 33% of 1 FTE	1 FTE	
	Consultation (all hlth. related topics)	N/A	-0-	University & Private Agencies	N/A	N/A			
Film Library	Films on various subjects	N/A	$10,675	State Agencies					
	Equipment loans	N/A							
Records & Statistics Bureau									
Air Quality Bureau	None	N/A	N/A	N/A	N/A	N/A	N/A		
Occupational Health Bureau	Occupational Health								
Solid Waste Manag.	Environmental Health	Both	N/A	Gen. Public/Service Providers & Elected officials	N/A	N/A	= 1 staff person		

HEALTH EDUCATION SERVICES
PROVIDED BY STATE AGENCIES
(Continued Page 2)

Agency	Services	Nature of Service (Preventive/ Remedial)	Estimated Service Budget (FY78)	Target Population for Service	No. of Persons Served in 1978	Estimate of Unmet Need	Staff Time Devoted to Service	Total Staff for Agency	Laws Requiring Health Ed.
Food and Consumer Safety Bureau	Accident Prev.	Both	1, 2 and 3 total	General Public	10% of general public	90% of general public	1 1/4 FTE for 1, 2 and 3		Montana Consumer Product Safety Act, 1975
	Burns	Preventive		General Public	10% of general public	90% of general public			
	Consumer Product Safety	Preventive	$ 25,000	General Public	10% of general public	90% of general public			
	Food Service Sanitation	Preventive/Remedial	$ 5,000	Public Food Serv. Industry Managers & employees	25% of Industry	70% of Industry	2% of a Man year		
Subdivision Bureau	Environmental Health	Preventive	$300,000	Lot buyers	15,000 persons		8 1/2 FTEs		Subdivision Act
Water Quality Bureau	Water Pollution Control Info. & Education (Env. Hlth.)	Both Preventive & Remedial	$ 45,000	Agriculture, Forestry, Mining Industries	Records not Maintained		1.5 Man years		Federal Water Pol. Control Amendments & rules adopted for public participation.
Dental Health	Dental Health (adult)	Preventive	$ 12,955	General Public	228,000	320,000	208 hours	10% of 1 FTE	
	Dental Health (children)	Remedial	$ 25,000	Ele. school chil. medically indigent fam./Flathead Co.	449	221	208 hours	10 % of 1 FTE	
		Preventive	$ 91,604	All ele. children	56,000	56,000	7,616 hrs.	100% of 1 FTE 80% of 1 FTE 90% of 1 FTE	
Nursing Bureau	Job training/ continuing ed. & consultation public health nurses			Public health nurses in Montana					

HEALTH EDUCATION SERVICES
PROVIDED BY STATE AGENCIES
(Continued Page 3)

Agency	Services	Nature of Service (Preventive/ Remedial)	Estimated Service Budget (FY78)	Target Population for Service	No. of Persons Served in 1978	Estimate of Unmet Need	Staff Time Devoted to Service	Total Staff for Agency	Laws Requiring Health Ed.
Maternal & Child Health Bureau	Childhood Diseases Death & Dying Nutrition Child Abuse Parenting Ed. Community Organization Staff Development/ Professional Growth Handicapped Children	Preventive		Basically women & children but all residents of Montana are possibilities		Now being assessed			
Preventive Health Services Bureau	Communicable Disease Control Venereal Disease Control Tuberculosis Control Chronic Disease (hypertension, diabetes, heart disease, cancer, rheumatic fever)	Preventive and Remedial							
Emergency Medical Services Bureau	EMT Training Public Info. on Poisoning General Emergencies	Remedial							
Licensing & Cert. Bureau	Job training programs for health-care workers	N/A	N/A (financed by regional office DHEW, Hlth. Care Finan. Admin.)	Hlth. care workers X-ray tech., hlth facility surveyors, infection control officers					

HEALTH EDUCATION SERVICES
PROVIDED BY STATE AGENCIES
(Continued Page 4)

Agency	Services	Nature of Service (Preventive/ Remedial)	Estimated Service Budget (FY78)	Target Population for Service	No. of Persons Served in 1978	Estimate of Unmet Need	Staff Time Devoted to Service	Total Staff for Agency	Laws Requiring Health Ed.
Health Planning & Resource Develop. Bureau	Health System Utilization	Both	15-20% of total budget	General public State Agencies Hlth. Profess. Same	2,500	700,000	15-20% of staff time		PL 93-641
	Health Policy	Both	Same		Same	Same	Same		
	Cost Containment	Both	Same		Same	Same	Same		
Chemestry Lab Bureau									
Microbi-ology Lab Bureau									
Alcohol & Drug Abuse Division	Alcoholism/ Alcohol-related problems	Preventive	$ 13,474	Statewide			1040 hours	50%	
	Drug Abuse	Preventive	$ 42,216	Statewide			1040 hours	50%	
Mental health & Residential Services Division	Mental Health	Preventive and Remedial		Through local community Mental Health Centers					Title 53, MCA 1979

HEALTH EDUCATION SERVICES
PROVIDED BY STATE AGENCIES
(Continued Page 5)

Agency	Services	Nature of Service (Preventive/ Remedial)	Estimated Service Budget (FY78)	Target Population for Service	No. of Persons Served in 1978	Estimate of Unmet Need	Staff Time Devoted to Service	Total Staff for Agency	Laws Requiring Health Ed.
Safety & Health Bureau	Defensive Driving	Preventive	$ 15,000	Public Employees	648	Pub. Employees City, Co.& St.	176 hrs/year (24% total)		Montana Safety & Health Act
	First-Aid	Preventive	$ 31,000	All Employees	678	All Montana Employees	400 hrs/year		
	CPR	Remedial	$ 12,000	All Employees	104	All Citizens of Mt. 13 yrs. +	72 hrs/year (18% total)		
	Occupational Health	Preventive	$ 43,000	Public Employees		4,500 estimated	90% of total time		
Office of Public Instruction	School Hlth. Ed. Needs Assessment Curriculum Dev. Resources In-service Train. Follow-up in all subject areas	Both	$ 3,500	All public elementary and secondary educators	150 schools	650 schools	1/2 FTE		
Aging Services Bureau	Administration of contracts with local Aging & Nutrition Agencies for nutrition, transportation, home health & homemaker, info. & referral, outreach, and hlth & welfare counseling services		Contracted to Local Agencies	Aging Persons					
Child & Youth Develop. Bureau									

HEALTH EDUCATION SERVICES
PROVIDED BY STATE AGENCIES
(Continued Page 6)

Agency	Services	Nature of Service (Preventive/ Remedial)	Estimated Service Budget (FY78)	Target Population for Service	No. of Persons Served in 1978	Estimate of Unmet Need	Staff Time Devoted to Service	Total Staff for Agency	Laws Requiring Health Ed.
Social Services Bureau	Aging	Remedial	$ 744,127	Statewide	4,187	300	24%		Title XX S.S. Act
	Alcoholism/ Alcohol-related problems	Remedial	$ not broken down	Statewide	-	-	5%		RCM 1947 Sections 40-8-101
	Birth Control/ Fam. Planning	Preventive	$ 255,000	Statewide	3,000	500	2%		71-201-250 61-302 10-1300-10-4322
	Death & Dying	Remedial	$ not broken down	Statewide	not available	N/A	3%		71-2303-2307
	Fam. Problems (children&fam.)	Remedial	$1,733,461	Statewide	18,590	900	48%		71-2001-2007
	Disabled Adults	Remedial	$ 486,723	Statewide (disabled)	2,542	300	14%		71-1414-1919
	Information & Referral	Both	$ 952,564	Everyone	8,800	-	4%		71-1901-1913
Highway Safety Division	Accident Preven.	Preventive	$ 10,000	550,000	Unknown	Variable	Less than 1/2 FTE per year (10% of total effort)		
	Alcoholism/ Alcohol Prob.	Both	$ 50,000	5,000 Rem. 550,000 Prev.	3,000 Rem. 300,000 Prev.				
	Consumer Product Safety	Preventive	$ 10,000	550,000	Unknown				
	Defensive Driving	Preventive	$ 8,000	2,000	1,000				
	First-Aid	Remedial	$ 35,000	2,000	150				

FLATHEAD COUNTY CHILDREN'S DENTAL HEALTH PROJECT

Results from the screening data indicate a tremendous improvement in the dental health status of the children in Flathead County, but especially in the two grades that have been in the project in its entirety.

Class I - need emergent dental care
Class II - need some type of dental care
Class III - need no dental care

1971-72 - 2nd Grade

Total Children Screened - 749
Class I - 13%
Class II - 45%
Class III - 42%

1975-76 -6th Grade

Total Children Screened - 759
Class I - 2.5%
Class II - 23%
Class III - 74.5%

1971-72 - 1st Grade

Total Children Screened - 750
Class I - 10%
Class II - 43%
Class III - 47%

1976-77 - 6th Grade

Total Children Screened - 815
Class I - 2%
Class II - 14%
Class III - 84%

The total for all children screened in the county is equally impressive.

June 1972

Total Children Screened - 1,548
Class I - 12%
Class II - 44%
Class III - 44%

June 1977

Total Children Screened - 4,770
Class I - 4%
Class II - 20%
Class III - 76%

The Project has been keeping special statistics on the first grade children as they enter school. Since the first year of operation it has become quite obvious that the dental health education the children receive at school is projected into the home. The younger brothers and sisters enter shcool in a much better status of dental health than did the original children screened.

1971-72 - 1st Grade

Class I - 12%
Class II - 44%
Class III - 44%

1976-77 - 1st Grade

Class I - 6%
Class II - 22%
Class III - 72%

The Flathead County Children's Dental Health Project has been and is an outstanding success. It has shown a method of delivering dental health education, preventive services, and dental care to children in Montana that can be used in communities, regions, or statewide, using dentists in private

practice to provide the care and dental hygienists to provide the other services.

Everyone in Flathead County continues to be happy and supportive of the Project--the Health Department, the school system, the dentists and the children participating. The County Commissioners continue to budget hard money as their share of the Project budget and have indicated if State and Federal support were withdrawn, they would do everything in their power to fund at least the dental hygienist to carry on the school program.

ANACONDA FLUORIDE MOUTH RINSE PROGRAM

The State Council on Dental Health, using a Federal Grant, picked Anaconda as the site for a fluoride mouth rinse study. It has been operational for three years - upon completion in December 1978, the school system decided to continue the program in Anaconda.

The dental health status of the children examined shows a marked improvement for the three years the program has been in existence.

Class I - need emergent dental care
Class II - need some type of dental care
Class III - need no dental care

1975 Exam	1976 Exam	1977 Exam
Class I - 12%	Class I - 7%	Class I - 4%
Class II - 56%	Class II - 57%	Class II - 37%
Class III - 32%	Class III - 36%	Class III - 59%

The reduction of Class I was probably aided by the follow-up by the program coordinators. The reduction in Class II and increase in Class III were probably a result of:

...the dental health education and spinoff of dental health awareness;
...the addition of two dentists to Anaconda;
...the purchase of a dental care plan by the Anaconda Company (the major industry in the city) for its employees.

MATERNAL AND INFANT CARE POLICIES

The following Federal and State policies were identified to improve infant morbidity and mortality through the provision of specialized health care.

FEDERAL POLICY: The State shall provide a program of projects for intensive infant care, particularly in areas with concentrations of low-income families, which offer reasonable assurance of satisfactory helping to reduce (1) the incidence of mental retardation and other handicapping conditions caused by complications associated with childbearing, and (2) infant morbidity and mortality, through the provision of necessary health care to infants, during the first year of life, who have any conditions or who are in circumstances which increase the hazards to their health. (Social Security Act, Title V, Section 508 (a) (2)).

FEDERAL POLICY: The Special Supplemental Food Program for Women, Infants, and Children (WIC) shall provide specified nutritious food supplements to pregnant and nursing women, and to infants and children up to 5 years of age who are determined by competent professionals (physicians, nutritionists, and nurses) to be at "nutritional risk" because of inadequate income. (Department of Agriculture)

STATE POLICY: Any health professional may render emergency or medical service to any person regardless of age who is in need of immediate health care when the professional believes that the giving of aid is the only alternative to probable death or serious physical or mental damage. (M.C.A., 1978, Chapter 1, Section 41-1-405)

STATE POLICY: A person in charge of a facility wherein a child is born or wherein a newborn infant is cared for or a person responsible for the registration of birth of an infant shall ensure each infant is administered tests designed to detect inborn metabolic errors as shall be required to be administered under rules adopted by the DHES. (M.C.A., 1978, Chapter 19, Section 50-19-203)

STATE POLICY: The DHES shall:

(1) Develop and administer a program to protect the health of mothers and children; and
(2) Develop and administer a program for services to handicapped children including diagnosis, medical surgical, and corrective treatment, and aftercare and related services. (M.C.A., 1978, Title 50, Chapter 1, Section 50-1-202)

STATE POLICY: No person shall deny another person the use, in a professional or other capacity, of any facility constructed with Federal aid in whole or in part, or discriminate against another person on the grounds of race, color, or national origin. (M.C.A., 1978, Title 50, Chapter 5, Section 50-5-412)

FEDERAL OBLIGATIONS FOR THE U.S. AND MONTANA

[Dollar amounts in thousands]

MONTANA	FY 1977 FUNDS NATIONAL TOTAL	STATE AMOUNT	STATE %
DEPARTMENT OF DEFENSE-MILITARY	$91,322,836	$321,150	.4
ATOMIC ENERGY DEFENSE ACTIVITIES	$1,351,047	.....	.....
DEFENSE-RELATED ACTIVITIES	$25,136	.....	.....
FOREIGN ECONOMIC AND FINANCIAL ASSISTANCE	$1,182,726	$655	.1
CONDUCT OF FOREIGN AFFAIRS	$313,748	$6	***
FOREIGN INFORMATION AND EXCHANGE ACTIVITIES	$130,645	.....	.....
GENERAL SCIENCE, SPACE, AND TECHNOLOGY	$3,944,860	$33	***
GENERAL SCIENCE AND BASIC RESEARCH	$1,332,818	$1,021	.1
NATURAL RESOURCES, ENVIRONMENT, AND ENERGY	$153,883	$3,762	2.4
WATER RESOURCES AND POWER	$4,491,647	$34,362	.8
CONSERVATION AND LAND MANAGEMENT	$2,660,985	$134,209	5.0
RECREATIONAL RESOURCES	$1,184,793	$15,010	1.3
POLLUTION CONTROL AND ABATEMENT	$8,188,813	$12,221	.1
ENERGY	$3,973,847	$737	***
OTHER NATURAL RESOURCES	$942,479	$3,993	.4
FARM INCOME STABILIZATION	$6,354,076	$159,165	2.5
AGRICULTURAL RESEARCH AND SERVICES	$1,135,575	$6,250	.6
MORTGAGE CREDIT AND THRIFT INSURANCE	$89,049	$8	***
POSTAL SERVICE	$13,094,381	$49,262	.4
OTHER ADVANCEMENT AND REGULATION OF COMMERCE	$1,233,810	$1,144	.1
GROUND TRANSPORTATION	$11,121,808	$88,747	.8
AIR TRANSPORTATION	$1,808,403	$7,402	.4
WATER TRANSPORTATION	$1,651,378	$291	***
OTHER TRANSPORTATION	$112,347	$17	***
COMMUNITY DEVELOPMENT	$4,627,592	$17,585	.4
AREA AND REGIONAL DEVELOPMENT	$7,731,145	$76,921	1.0
DISASTER RELIEF AND INSURANCE	$366,788	$2,397	.7
EDUCATION, TRAINING, EMPLOYMENT, SOCIAL SVCS.	$1,928,218	$10,264	.5
ELEMENTARY, SECONDARY, & VOCATIONAL EDUCATION	$4,708,766	$30,452	.6
HIGHER EDUCATION	$3,403,069	$12,711	.4
RESEARCH AND GENERAL EDUCATION AIDS	$733,435	$2,652	.4
TRAINING AND EMPLOYMENT	$11,283,066	$57,823	.5
OTHER LABOR SERVICES	$320,664	$32	***
SOCIAL SERVICES	$2,989,508	$11,826	.4
HEALTH	$2,081,471	$4,848	.2
HEALTH CARE SERVICES	$34,367,652	$88,458	.3
HEALTH RESEARCH AND EDUCATION	$1,808,965	$488	***
PREVENTION AND CONTROL OF HEALTH PROBLEMS	$876,233	$2,152	.2
HEALTH PLANNING AND CONSTRUCTION	$74,793	$1,208	1.6
GENERAL RETIREMENT AND DISABILITY INSURANCE	$90,216,255	$314,979	.3
FEDERAL EMPLOYEE RETIREMENT AND DISABILITY	$10,536,639	$37,438	.4
UNEMPLOYMENT INSURANCE	$1,971,154	$7,612	.4
PUBLIC ASSISTANCE & OTHER INCOME SUPPLEMENTS	$21,066,775	$42,536	.2
INCOME SECURITY FOR VETERANS	$10,022,427	$35,380	.4
VETERANS EDUCATION, TRNG., AND REHABILITATION	$3,897,512	$12,047	.3
HOSPITAL AND MEDICAL CARE FOR VETERANS	$4,691,913	$14,384	.3
VETERANS HOUSING	$80,094	$5,542	6.9
OTHER VETERANS BENEFITS AND SERVICES	$544,757	$1,879	.3
FEDERAL LAW ENFORCEMENT AND PROSECUTION	$1,333,324	$5,798	.4
FEDERAL JUDICIAL ACTIVITIES	$9,563	$26	.3
FEDERAL CORRECTIONAL AND REHAB. ACTIVITIES	$313,644	$156	***
LAW ENFORCEMENT ASSISTANCE	$695,939	$2,669	.4
EXECUTIVE DIRECTION AND MANAGEMENT	$47,629	.....	.....
CENTRAL FISCAL OPERATIONS	$2,418,218	$3,852	.2
GENERAL PROPERTY AND RECORDS MANAGEMENT	$3,099,389	$7,016	.2
CENTRAL PERSONNEL MANAGEMENT	$142,094	$72	.1
OTHER GENERAL GOVERNMENT	$315,030	$254	.1
GENERAL REVENUE SHARING	$6,761,893	$24,337	.4
OTHER GENERAL PURPOSE FISCAL ASSISTANCE	$1,873,725	$14,635	.8

	FY 1977 FUNDS NATIONAL TOTAL	STATE AMOUNT	STATE %
OTHER INTEREST	$313,155	$1,034	.3
TOTALS	**$395,656,215**	**$1,690,910**	**.4**

Medicaid Expenditures FY's 1977 & 1978

TYPE OF SERVICE	Expenditures 1977	Expenditures 1978	Percent Difference
Inpatient	7,667,426	9,123,292	18.98
Outpatient	1,005,301	996,255	- .89
Physician	4,711,716	4,991,319	5.93
Other Prac.	990,180	1,099,069	10.99
Drugs	2,490,360	2,451,421	- 1.56
Dental	1,448,001	1,439,253	- .60
Skilled Nursing	7,601,072	3,808,713	- 49.89
Interm. Nursing	12,991,321	21,842,967	68.13
Laboratory	49,804	76,442	53.48
Home Health	151,931	189,229	24.54
Family Planning	218,534	191,084	- 12.56
Misc.	705,789	1,726,516	144.62
Total	40,031,435	47,935,560	19.74

62.99 per capita expense

MEDICARE*

Expenditures for Medicare, FY 1977

BLUE CROSS

Hospital	$ 37,924,966.72		
Skilled Nursing	860,735.54		
Physical Therapy	40,465.26		
Home Health	694,262.74		
		Sub Total	$39,520,430.26

BLUE SHIELD

(break-out of funds was not available) Sub Total $20,613,219.00

MUTUAL OF OMAHA

Physical Therapy	$ 273,782.46		
Inpatient/Outpatient	5,240.32		
Home Health	80,219.16		
		Sub Total	$ 359,241.94

TRAVELERS INSURANCE

Information not available.

TOTAL: $60,492,891.20

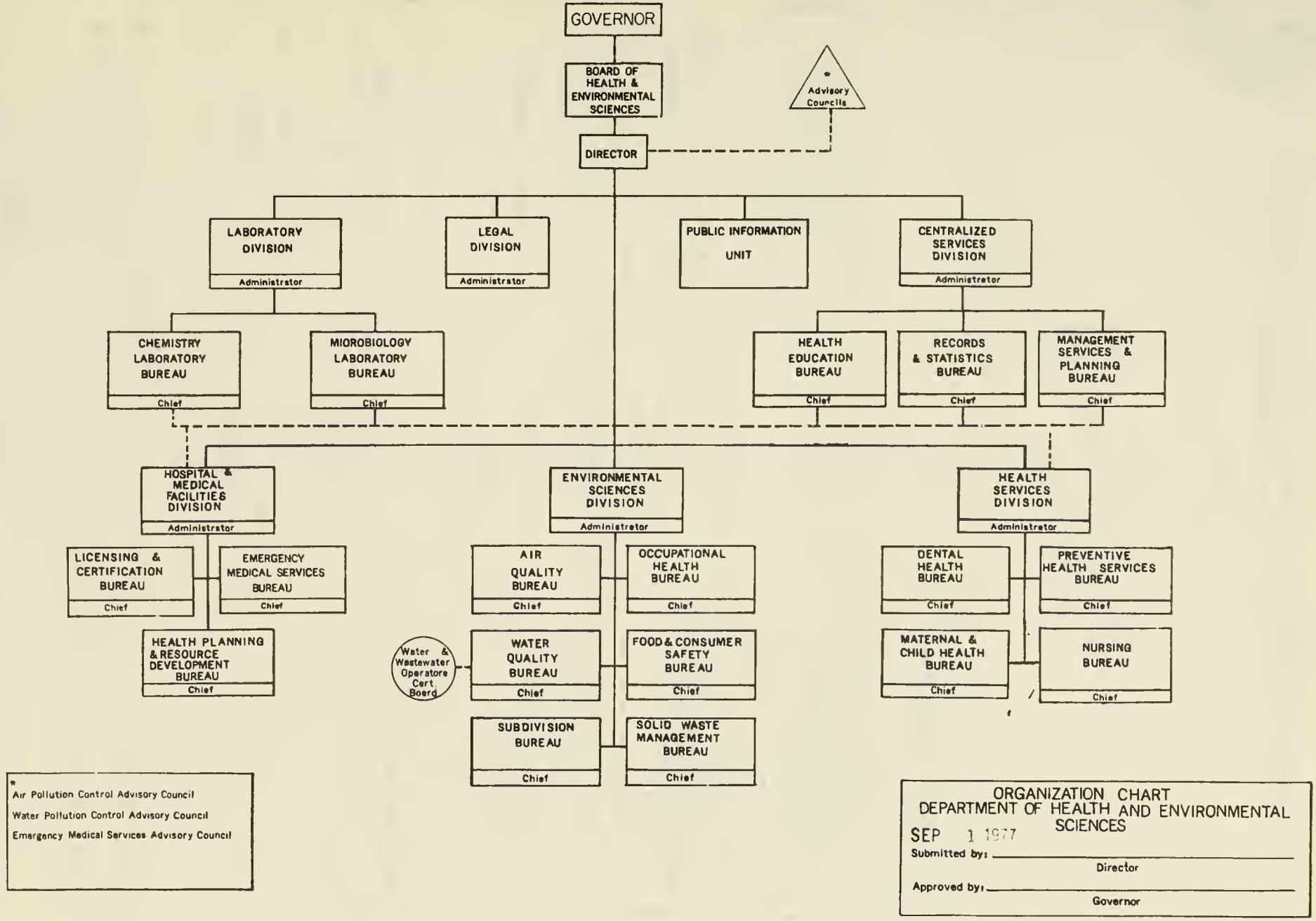
Per capita expense: $ 79.49

*For a full explanation of the Medicare program see the appendix.

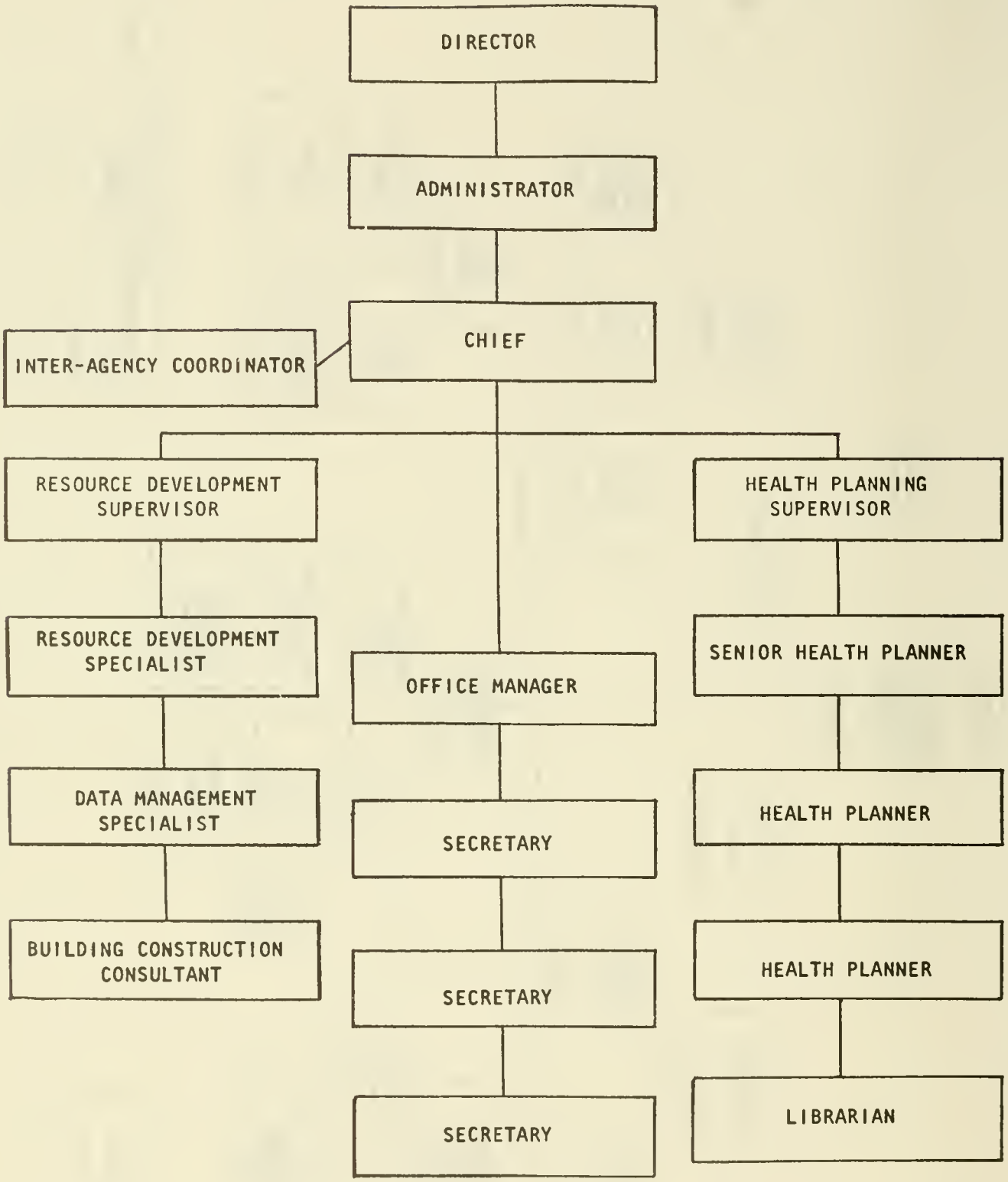
APPENDIX III

SHPDA ORGANIZATION

ROLE, AND WORK PLAN


GOVERNOR
BOARD OF HEALTH & ENVIRONMENTAL SCIENCES
* Advisory Councils
DIRECTOR
LABORATORY DIVISION
Administrator
LEGAL DIVISION
Administrator
PUBLIC INFORMATION UNIT
CENTRALIZED SERVICES DIVISION
Administrator
CHEMISTRY LABORATORY BUREAU
Chief
MIOROBIOLOGY LABORATORY BUREAU
Chief
HEALTH EDUCATION BUREAU
Chief
RECORDS & STATISTICS BUREAU
Chief
MANAGEMENT SERVICES & PLANNING BUREAU
Chief
HOSPITAL & MEDICAL FACILITIES DIVISION
Administrator
ENVIRONMENTAL SCIENCES DIVISION
Administrator
HEALTH SERVICES DIVISION
Administrator
LICENSING & CERTIFICATION BUREAU
Chief
EMERGENCY MEDICAL SERVICES BUREAU
Chief
HEALTH PLANNING & RESOURCE DEVELOPMENT BUREAU
Chief
AIR QUALITY BUREAU
Chief
OCCUPATIONAL HEALTH BUREAU
Chief
Water & Wastewater Operatore Cert. Boerd
WATER QUALITY BUREAU
Chief
FOOD & CONSUMER SAFETY BUREAU
Chief
SUBDIVISION BUREAU
Chief
SOLID WASTE MANAGEMENT BUREAU
Chief
DENTAL HEALTH BUREAU
Chief
PREVENTIVE HEALTH SERVICES BUREAU
Chief
MATERNAL & CHILD HEALTH BUREAU
Chief
NURSING BUREAU
Chief
* Air Pollution Control Advisory Council
Water Pollution Control Advisory Council
Emergency Medical Services Advisory Council
ORGANIZATION CHART
DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
SEP 1 1977
Submitted by: Director
Approved by: Governor

HEALTH PLANNING AND RESOURCE DEVELOPMENT BUREAU



DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
DIVISION OF HOSPITAL AND MEDICAL FACILITIES

Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

A C Knight, M D., F C.C P
Director

September 25, 1978

George Fenner, Administrator
Division of Hospital & Medical Facilities
Department of Health and
Environmental Sciences
Helena, Montana 59601

Dear George:

I am very much in agreement with the proposed role of the Bureau of Health Planning and Resource Development as presented in the document entitled "The Role of the SHPDA" dated September 18, 1978. Please consider this letter your authority to proceed with the implementation of the revised SHPDA role.

I realize that it will take several years to fully implement the role and that there are currently several pilot projects underway for this purpose. I will be following your progress with interest and expect to be periodically updated on the effort.

Integrated planning, service delivery and evaluation are certainly worthwhile goals to achieve. Please call upon my office when the need arises for any reasonable support you require for carrying out your role.

Sincerely,

A. C. Knight, M.D., F.C.C.P.
Director

THE ROLE OF THE SHPDA

September 18, 1978

The following paper presents the proposed role of the Bureau of Health Planning and Resource Development (SHPDA). The primary function of the Bureau will be one of program management through the coordination of health related services as a mechanism for ensuring quality health services for all the citizens of Montana.

PROGRAM MANAGEMENT CONCEPTS

Program management units should be independent without line authority over any service provider organizational elements. The program management unit influences the program's directions through leadership management techniques. When the unit encounters a problem that it cannot resolve through leadership techniques, it may call this problem to the attention of the appropriate level of line government with recommendations for resolution. This is possible and permissible because the unit is responsible for working at all levels of government to achieve program objectives. The benefits of improved effectiveness and efficiency are achieveable if the program management unit is not permitted to become entangled in the day-to-day responsibilities of line management duties. In other words, it should never be directly in charge of service provisions.

A well conceived and executed program management unit, therefore, functions by;

1. Utilizing leverage and influence rather than creating dependence upon the program's financial or service providing resources.

2. Being catalytic to the service providing agencies rather than in a line/directive relationship.

3. Coordination can be achieved through focusing on needs assessment, development of impact objectives, and information collection and dissemination particularly in the areas of impact, performance, and administrative evaluation.

4. Accepting product management responsibility despite its lack of authority.

5. Determining the degree to which the service delivery agencies' processes are contributing to the program's product objectives.

6. Establishing its right to existence from the viewpoint of the consumer who uses and/or pays for the end product.

SHPDA FUNCTIONS AND ROLE

The SHPDA is concerned with the health care services provided to all the citizens of Montana, and therefore will work to achieve the following objectives:

- to develop a coordinated and comprehensive approach to health problems within the state;

- to develop and articulate state health and health related policies;

- to guide resource allocation in the achievement of equal access to quality health care.

In order to achieve these objectives, the SHPDA proposes to function as a program management unit, concerned with inter-program management. The SHPDA has divided its responsibilities into five function areas as follows: (1) Health (Product) Planning; (2) Health (Product) Information and Data Systems; (3) Health Resource Coordination and Development; (4) Health (Product) Evaluation; and (5) Health Consumer Relations (Consumer advocacy, Ombudsman). The description of each functional area is presented below and is shown schematically on the attached chart (Health Program Coordination: Planning and Evaluation).

Health Product Planning

Program planning develops a product outcome strategy through the analysis of four primary inputs: consumer information, service provider information, statistical data, and methods research. Outputs of this strategy would include, for example, criteria and standards for health care services, or proposals for optimum utilization of health care resources.

Health Product Information and Data Systems

The information and data systems function includes collecting and analyzing information that is pertinent to the formulation and execution of both the total program and sub-program elements. It is concerned with data that can be used for targeting resources on the product so that the greatest return on available resources may be developed. This unit also assists in the verification of service provider performance and resource data.

Health Resources Coordination and Development

The resources coordination and development function includes responsibility for field coordination and liaison with all federal, state, county and local governmental entities which perform tasks within the health programs. In this capacity, the SHPDA coordinates, leads, and expedites the implementation of the management strategies that have been established and proven effective in these program areas. One vital function is to disseminate information that is developed through the program needs assessment, planning, and evaluation processes (e.g., use of evaluation data in the certificate of need process). Resources coordination and development, within the program management concept, also includes monitoring the implementation of planning strategies and facilitating inter and intra-agency performance.

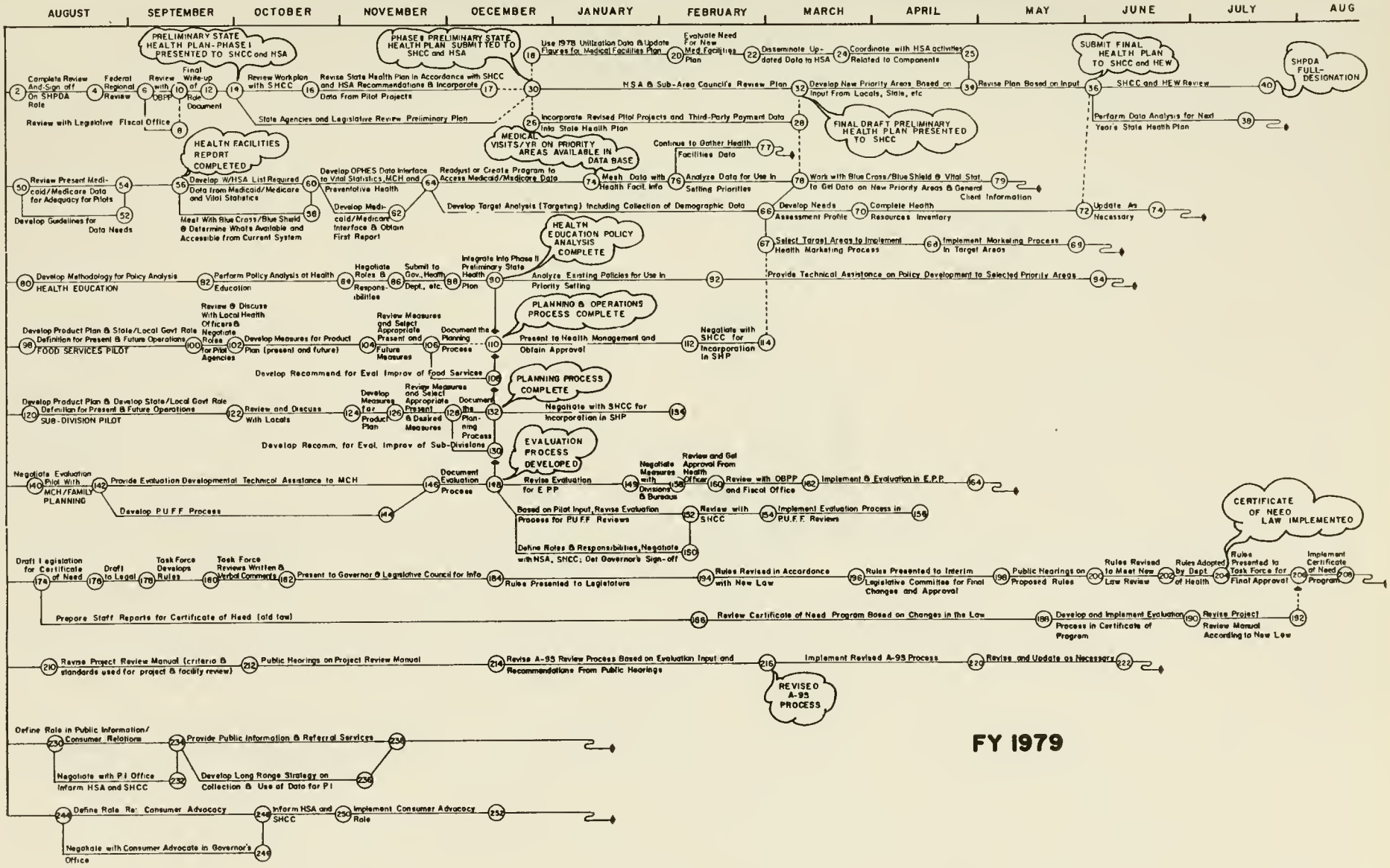
Health Evaluation

The management evaluation function is concerned with generating dynamic evaluation information that identifies the impact, performance and administrative progress of the programs. Evaluation is most critical to the effectiveness of the program management unit. Evaluation is the key feedback link for modification of objectives, functions, administrative practices and organizational structure. In order to perform its evaluation function, the SHPDA crosses existing organizational lines to look at elements of the program relative to achievement of program and sub-program objectives.

Health Consumer Relations

Consumer relations involves the dissemination of public information, coordination of public referral agencies, and assessment of consumer need.

INTEGRATED HEALTH PLANNING & LOCAL EVALUATION WORK PLAN


AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUG
PRELIMINARY STATE HEALTH PLAN-PHASE I PRESENTED TO SHCC and HSA
PHASE II PRELIMINARY STATE HEALTH PLAN SUBMITTED TO SHCC and HSA
SUBMIT FINAL HEALTH PLAN TO SHCC and HEW
SHPDA FULL-DESIGNATION
Complete Review And Sign off On SHPDA Role
Federal Regional Review
Review with OBPP
Final Write-up of Role Document
Review Workplan with SHCC
Revise State Health Plan in Accordance with SHCC and HSA Recommendations & Incorporate Data From Pilot Projects
Review with Legislative Fiscal Office
State Agencies and Legislative Review Preliminary Plan
Use 1978 Utilization Data & Update Figures for Medical Facilities Plan
Evaluate Need For New Med. Facilities Plan
Disseminate Updated Data to HSA
Coordinate with HSA activities Related to Components
NSA & Sub-Area Council's Review Plan
Develop New Priority Areas Based on Input From Locals, State, etc
Revise Plan Based on Input
SHCC and HEW Review
Incorporate Revised Pilot Projects and Third-Party Payment Data Into State Health Plan
FINAL DRAFT PRELIMINARY HEALTH PLAN PRESENTED TO SHCC
Perform Data Analysis for Next Years State Health Plan
HEALTH FACILITIES REPORT COMPLETED
MEDICAL VISITS/YR ON PRIORITY AREAS AVAILABLE IN DATA BASE
Continue to Gather Health Facilities Data
Review Present Medicaid/Medicare Data for Adequacy for Pilots
Develop Guidelines for Data Needs
Develop W/HSA List Required Data from Medicaid/Medicare and Vital Statistics
Develop OPHES Data Interface to Vital Statistics, MCH and Preventative Health
Develop Medicaid/Medicare Interface & Obtain First Report
Readjust or Create Program to Access Medicaid/Medicare Data
Mesh Data with Health Facil. Info
Analyze Data for Use in Setting Priorities
Work with Blue Cross/Blue Shield & Vital Stat. to Get Data on New Priority Areas & General Client Information
Meet With Blue Cross/Blue Shield & Determine Whats Available and Accessible from Current System
Develop Target Analysis (Targeting) Including Collection of Demographic Data
Develop Needs Assessment Profile
Complete Health Resources Inventory
Update As Necessary
HEALTH EDUCATION POLICY ANALYSIS COMPLETE
Select Target Areas to Implement Health Marketing Process
Implement Marketing Process In Target Areas
Develop Methodology for Policy Analysis HEALTH EDUCATION
Perform Policy Analysis at Health Education
Negotiate Roles & Responsibilities
Submit to Gov., Health Dept., etc.
Integrate Into Phase II Preliminary State Health Plan
Analyze Existing Policies for Use in Priority Setting
Provide Technical Assistance on Policy Development to Selected Priority Areas
PLANNING & OPERATIONS PROCESS COMPLETE
Develop Product Plan & State/Local Govt Role Definition for Present & Future Operations FOOD SERVICES PILOT
Review & Discuss With Local Health Officers & Negotiate Roles for Pilot Agencies
Develop Measures for Product Plan (present and future)
Review Measures and Select Appropriate Present and Future Measures
Document the Planning Process
Present to Health Management and Obtain Approval
Negotiate with SHCC for Incorporation in SHP
Develop Recommend for Eval Improv of food Services
PLANNING PROCESS COMPLETE
Develop Product Plan & Develop State/Local Govt Role Definition for Present & Future Operations SUB-DIVISION PILOT
Review and Discuss With Locals
Develop Measures for Product Plan
Review Measures and Select Appropriate Present & Desired Measures
Document the Planning Process
Negotiate with SHCC for Incorporation in SHP
Develop Recomm. for Eval. Improv of Sub-Divisions
EVALUATION PROCESS DEVELOPED
Negotiate Evaluation Pilot With MCH/FAMILY PLANNING
Provide Evaluation Developmental Technical Assistance to MCH
Develop P.U.F.F. Process
Document Evaluation Process
Revise Evaluation for E.P.P.
Negotiate Measures with Divisions & Bureaus
Review and Get Approval From Health Officer
Review with OBPP and Fiscal Office
Implement & Evaluation in E.P.P.
Based on Pilot Input, Revise Evaluation Process for P.U.F.F. Reviews
Review with SHCC
Implement Evaluation Process in P.U.F.F. Reviews
Define Roles & Responsibilities, Negotiate with HSA, SHCC; Get Governor's Sign-off
CERTIFICATE OF NEED LAW IMPLEMENTED
Draft Legislation for Certificate of Need
Draft to Legal
Task Force Develops Rules
Task Force Reviews Written & Verbal Comments
Present to Governor & Legislative Council for Info
Rules Presented to Legislature
Rules Revised in Accordance with New Law
Rules Presented to Interim Legislative Committee for Final Changes and Approval
Public Hearings on Proposed Rules
Rules Revised to Meet New Law Review
Rules Adopted by Dept of Health
Rules Presented to Task Force for Final Approval
Implement Certificate of Need Program
Prepare Staff Reports for Certificate of Need (old law)
Review Certificate of Need Program Based on Changes in the Law
Develop and Implement Evaluation Process in Certificate of Need Program
Revise Project Review Manual According to New Law
Revise Project Review Manual (criteria & standards used for project & facility review)
Public Hearings on Project Review Manual
Revise A-95 Review Process Based on Evaluation Input and Recommendations From Public Hearings
Implement Revised A-95 Process
Revise and Update as Necessary
REVISED A-95 PROCESS
Define Role in Public Information/ Consumer Relations
Provide Public Information & Referral Services
Negotiate with P.I Office Inform HSA and SHCC
Develop Long Range Strategy on Collection & Use of Data for P.I
Define Role Re: Consumer Advocacy
Inform HSA and SHCC
Implement Consumer Advocacy Role
Negotiate with Consumer Advocate in Governor's Office

FY 1979

APPENDIX IV

HSP EXECUTIVE SUMMARY

AND GOALS AND OBJECTIVES

EXECUTIVE SUMMARY

This document -- the Montana Health Systems Plan - 1979 --was developed by the Montana Health Systems Agency (MHSA). In accordance with the National Health Planning and Resources Development Act of 1974, P. L. 93-641, the intent of this plan is to delineate Montana's health care delivery system in 1985. It incorporates revisions of the MHSA's first Health Systems Plan approved by its Governing Board in January, 1978. The Health Systems Plan serves as a basis for informed decision making in the areas of planning and resource development, and it encompasses guidelines, review criteria and MHSA policy statements.

The MHSA's primary mechanism for encouraging the types of health services to be delivered in Montana is the review process. All health care institutions contemplating major capital expenditures, the development of new services or the alteration of the number of licensed beds must submit such projects to review by the HSA and the State Department of Health and Environmental Sciences (DHES). In these reviews the MHSA recommends to DHES, and the State agency has final decision making authority. In reviews of selected health programs for the Proposed Use of Federal Funds (PUFF), the MHSA itself has approval/disapproval power. Consequently, the seven chapters of the Health Systems Plan emphasize the provision of reasonable criteria for making these recommendations and decisions.

One of the major themes of the entire Health Systems Plan is cost containment. Table 1 presents rough estimates of the total expenditures in 1977 for the services and programs covered in the plan. Many of the plan components are intended to provide a baseline for reviewing new applications.

TABLE 1

One of the major themes of this plan is cost containment Table 1 presents rough estimates of the amount of money spent in 1977 for the services and programs addressed in this Health Systems Plan. Many of the plan components, particularly those addressing specific services, are intended to provide a background and baseline for reviewing new applications.

Service	Number Procedures	Overall Charge Per Procedure	Total Charges
Cardiac Caths	1,100	$ 1,000	$ 1,100,000
Open Heart Surgery	312	12,000	4,100,000
Radiation Therapy	19,220	50	900,000
CT Scans	1,272	300	400,000
E S R D	9,984	165	1,600,000
N I C Us	126	20,000	2,500,000
Poison Control	–	–	–
Burn Care	–	–	–
Blood Banking	31,156		1,100,000
		Subtotal	$11,700,000

TERTIARY CARE	$ 11,700,000
HOSPITAL CARE	111,900,000
General Acute Inpatient Care	–
Critical Care (ICU/CCU) Units	–
Acute Psychiatric Units	–
Diangnostic Imaging	–
Clinical Laboratories	–
LONG-TERM CARE FACILITIES	37,100,000
HOME HEALTH AGENCIES	1,400,000
ALCOHOL AND DRUG SERVICES	1,100,000
MENTAL HEALTH SERVICES	17,000,000
PRIMARY HEALTH CARE PERSONNEL	2,300,000
DENTAL PERSONNEL	300,000
EMERGENCY MEDICAL SYSTEM	900,000
PREVENTIVE DENTAL SERVICES	100,000
TOTAL	$183,800,000

TABLE 1 - Estimated 1977 Total Costs in Montana for the Services Addressed in the Health Systems Plan.

This Health Systems Plan includes guidelines, criteria and policy statements for twenty-two health services and three major health problems. The first fifteen of these services are covered in the 1978 plan, and these sections have been rewritten in a more systematic format taking into account the National Guidelines for Health Planning published in March, 1978. Table 3 shows which sections of the national health priorities are addressed by the components of the plan; those priorities with the greatest number of "x" marks have been targeted for special emphasis.

The first kind of health services discussed are tertiary services, which are specialized, highly complex and expensive services with a relatively low level of utilization, such as radiation therapy and burn care. The MHSA supports the development of three regional tertiary centers in Montana --Billings, Great Falls and Missoula. Many of these services have already been established in these cities and are sufficient to meet the needs of Montanans through 1985. For most of these services, exceptions to the national guidelines are needed to insure reasonable accessibility for all Montanans. Table 2 provides comparisons of national guidelines and current utilization levels, along with expected 1985 utilization, for hospital occupancy and bed supply and a number of tertiary services.

Next the plan addresses ten secondary services such as general hospital inpatient care, clinical laboratory services, and alcohol, drug and mental health services. The first three components in this section deal directly with hospital services and the issue of national guidelines for hospital resource standards and occupancy rates. MHSA studies indicate Montana will have 3.96 hospital beds per 1,000 population in 1985 if no additional beds are built, which would be within the national guideline ratio of 4.0. However, Montana hospitals should not be expected to meet the guideline for occupancy rates of 80 percent, since Montana hospitals are much smaller than those in most other states and therefore must regularly keep a higher proportion of beds available to provide adequate community service, especially in emergency situations. The components on clinical laboratory and diagnostic imaging services, which are provided in hospitals, clinics and individual physician's offices, stress the need to end duplication of effort. The components on long-term care facilities and home health care have been revised considerably from their first versions. In the current plan the MHSA supports alternatives to skilled nursing facilities and suggests a one-year moratorium on nursing home construction. The MHSA also supports the expansion of home health care in Montana,

SERVICE	NATIONAL GUIDELINES	CURRENT STATUS (1977)	EXPECTED STATUS (1979 HSP for 1985)
General Hospitals - Bed Supply	4.0 Beds/1,000 population (would result in 3,439 beds in 1985)	4.25 beds/1,000 population (3,201 beds)	3.43 beds/1,000 population (2,945 beds beds) if Plan were completely implemented. 3.72 beds/1,000 population (3,201 beds) if no beds were added or deleted 3.93 beds/1,000 population (3,379 beds) if the beds called for in the Plan were added, but none taken out of service
General Hospitals - Occupancy Rate	80% Annual Average Occupancy	55.4%	69.2% if Plan were completely implem. 63.7% if no beds were added or subtract. 60.3% if beds were added and none taken out of service
Obstetrical Services	Hospitals providing care for obstetrical problems should have at least 1,500 births annually and have an annual average occupancy rate of 75%	Births / % Occ. Kalispell 758 91.3% Missoula Community 1,465 52.0% Montana Deaconess 1,229 58.9% Columbus 447 Northern Mont. Hosp. 437 45.5% Silver Bow General 248 30.0% St. James Community 580 55.7% St. Peter's 727 48.2% Bozeman Deaconess 652 38.2% St. Vincent's 1,883 80.2% Holy Rosary 353 22.6%	Births / % Occ. [1] Kalispell 942 148.8% Missoula Community 1,748 78.9% Montana Deaconess 1,370 61.8% Columbus 471 63.8% Northern Mont. Hosp. 458 43.4% Silver Bow General 268 31.8% St. James Community 627 54.0% St. Peter's 898 53.2% Bozeman Deaconess 768 52.0% St. Vincent's 2,384 90.4% Holy Rosary 398 21.0%
Neonatal Special Care Units	Total number of beds should not exceed 4 per 1,000 live births per year A single neonatal unit should contain a minimum ob 15 beds	33 beds equals 2.61 beds/1,000 live births Billings 10 Great Falls 8 Missoula 6	52.5 beds equals 3.6 beds /1,000 live births Billings 10.6 Regional Great Falls 11.1 Neonatal Missoula 7.5 Centers (Level II)
Pediatric Inpatient Services - Number of Beds	Each unit should have at least 20 beds	Butte 4 Kalispell 3 Bozeman 2	Butte 5.9 Kalispell 4.1 Bozeman 3.1
- Occupancy Rates	Each unit with between 20 and 39 pediatric beds should have an annual occupancy rate of 65%	Kalispell 8 56.8% St. Patrick 30 45.2% Missoula Community 10 (est.) Montana Deaconess 20 50.4% Columbus 29 39.8% Northern Montana 12 60.1% Shodair 35 35.6% Silver Bow General 14 21.0% St. James Community 23 42.2%	Kalispell 8 70.6% [2] St. Patrick 30 53.9% Missoula Community 10 77.6% (est.) Montana Deaconess 20 56.2% Columbus 29 44.4% Northern Montana 12 63.0% Shodair 35 44.0% Silver Bow General 14 22.6% St. James Community 23 45.6%

		Bozeman Deaconess	7	47.6%	Bozeman Deaconess	7	56.1%
		St. Vincent's	28	79.2%	St. Vincent's	28	100.3%
		Billings Deaconess	10	35.2%	Billings Deaconess	10	44.6%
		Holy Rosary	11	16.1%	Holy Rosary	11	18.2%
Open Heart Surgery	Minimum of 200 open heart procedures annual in each facility after 3 years of operation.	Billings Deaconess	178		Billings Deaconess	130	
		St. Patrick	134		St. Patrick	130	
		Montana Deaconess	------		Montana Deaconess	83	
Cardiac Catheterization	Minimum of 300 cardiac catheterizations annually in each facility after 3 years of operation	Billings Deaconess	505		Billings Deaconess	361 [3]	
		St. Vincent's	------		St. Vincent's		
		St. Patrick	451		St. Patrick	347	
		Montana Deaconess	144		Montana Deaconess	221	
Radiation Therapy	Each facility should serve a population of 150,000 persons and treat at least 300 new patients annually after 3 years of operation		No. Proc.		(Est. Pop.)	No. New Patients.	No. Proc.
		St. Patrick	1,083		St. Patrick(261,259)	784	11,757
		Columbus	6,100		Columbus(183,309)	551	8,271
		St. James Community	1,254		St. James(78,049)	234	1,756
		Bozeman Deaconess	549		Boze. Deacon.(64,204)	176	1,317
		St. Peter's	1,026		St. Peter's(58,528)	176	1,317
	after 3 years of operation	St. James Community	1,254		St. James(78,049)	234	1,756
		Bozeman Deaconess	549		Boz. Deac.(64,204)	193	1,445
		St. Peter's	1,026		St. Peter's(58,528)	176	1,317
		Billings Deaconess	886				
		Northern Rockies Reg. Cancer Center	7,235		Northern Rockies Reg. Cancer Center (280,834)	843	12,637
		Central Montana	87				
CAT Scanners	Each facility should operate at a minimum of 2,500 procedures per year after 1 year of operation		Annualized Estimate				
		St. Patrick	840				
		Columbus	884				
		Eastern Rad. Associates	975				
E.S.R.D.	Each facility should be consistent with DHEW regulations governing the coverage of ESRD providers	(No. Stat)	No. Dialyses	% Used	(No. Stat)	No Dialyses	% Used
		St. Patrick (2)	155	9%	St. Patrick (6)	1,872	50%
		Columbus (4)	1,319	53%	Columbus (5)	1,560	50%
		St. Peter's (3)	815	44%	St. Peter's (7)	2,028	47%
		Billings Deac. (7)	2,129	49%	Billings Deac. (10)	3,120	50%

1) Based on current average length of stay of 3.46 days and the assumption that the size of the units will remain the same.

2) Based on the assumption that utilization will increase in proportion to the population and the size of the units will remain the same.

3) Estimated number of procedures performed in each subarea in 1985? South Central and Eastern Subareas combined for Billings Deaconess and St. Vincent's ; Southwestern Subarea not included.

TABLE 2

TABLE 3

	Clinical	Clinical Cardiovascular Labs	Radiation Therapy	CAT Scanners	E S R D	Neonates	Poison Control	Burn Care	Blood Banks	General Hospitals	I C U/C C U	Acute Psychiatric Units	Clinical Laboratory	Diagnostic Imaging	Long Term Care	Home Health Care	Alcohol Services	Drug Services	Mental Health	Primary Health Care	Dental Personnel	Emergency Medical	Preventive Dental
(1) The provision of primary care services for medically underserved Populations, especially those which are located in rural or economically depressed areas.																				X	X	X	
(2) The development of multi-institutional systems for coordination or consolidation of institutional health services (including obstetric, pediatric, emergency medical, intensive and coronary care, and radiation therapy services).	X	X	X	X	X	X	X			X	X	X			X	X	X	X	X			X	
(3) The development of medical group practices (especially those whose services are appropriately coordinated or integrated with institutional health services), health maintenance organizations, and other organized systems for the provision of health care.																							
(4) The training and increased utilization of physician assistants, especially nurse clinicians.																				X			
(5) The development of multi-institutional arrangements for the sharing of support services necessary to all health service institutions.					X		X			X			X	X	X								
(6) The promotion of activities to achieve needed improvements in the quality of health services, including needs identified by the review activities of Professional Standards Review Organizations under part B of the title XI of the Social Security Act 42 USC 1320c.																							
(7) The development by health service institutions of the capacity to provide various levels of care (including intensive care, acute general care, and extended care) on a geographically integrated basis.						X				X	X				X	X						X	
(8) The promotion of activities for the prevention of disease, including studies of nutritional and environmental factors affecting health and the provision of preventive health care services.							X										X	X	X				X
(9) The adoption of uniform cost accounting, simplified reimbursement, and utilization reporting systems and improved management procedu procedures for health service institutions.																							
(10) The development of effective methods of educating the general public concerning proper personal (including preventive) health care and methods for effective use of available health services.						X																	X

with the caveat that all new home health care agencies be able to show that they will be financially viable and that trained personnel are available in the service area.

In the area of primary care, the plan addresses the subjects of primary care personnel, dental personnel and emergency medical services (EMS). The first two components are manpower studies estimating the number of professionals practicing in Montana, and the EMS component develops guidelines from the goals and objectives of EMS annual funding applications.

The plan's last two chapters are concerned with preventive health services and three general health problems affecti Montanans -- heart disease, cancer and alcoholism. TI preventive health care component focuses on preventi dental care. In it the MHSA supports the concept of fluoric tion while recognizing that water fluoridation decisio must be made by the local communities affected. The co ponents on heart disease, cancer and alcoholism sugge possible programs for prevention and health education.

For additional background on the Montana Health Systen Agency and its purpose and functions, its current annu report, "The Two Year Old," is available on request.

Montana Health System Plan 1979

Health Status

Health Status Problem	Health Status Goal	Health Status Objectives	Recommended Actions
Heart Disease	To reduce the crude mortality rate from heart disease in Montana by 10 percent (to 260.3) deaths per 100,000 persons by 1985. Primary emphasis is to be placed upon health education, screening, and early intervention activities.	**General Suggestions** To develop systems of primary care through prevention, education and screening programs. **Health Education** To encourage and support intensive programs stressing medical care as only a segment of total health care. This is to be accomplished in part by increasing the use of nurses to work with those at risk. **Exercise** Support the development of programs promoting low cost exercise facilities and information regarding appropriate physical activity. **Nutrition** To promote more intense nutritional programs through public education and encourage public schools to eliminate "junk foods" from their facilities. **Smoking** To advocate increased emphasis on "stop smoking" clinics and anti-smoking programs. **General Screening and Blood Pressure Clinics** Support general screening concepts to identify high risk individuals through annual physical examinations, media education and convenient, visible locations for blood pressure testing. One of the primary groups for these programs should be senior citizens. **CPR Training** Support CPR training of the lay public in school systems, by Red Cross, the Heart Association, and EMS personnel.	———
Cancer	To reduce the mortality rate in Montana from cancer by 10 percent.	———	1. Promote treatment within the state of Montana to eliminate out of state travel, easing treatment costs. 2. Support plans to involve civic organizations in cancer education programs. 3. Advocate the development of informational systems to make cancer support services more accessible. 4 Advocate yearly pap smears for women 18 and over for earlier diagnosis of uterine cancer. 5. Through the American Cancer Society, encourage more women to engage in breast self-examination. 6. Through civic and charity organizations, encourage more participation in "Stop Smoking" clinics.

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(4) The training and increased utilization of physician assistants, especially nurse clinicians																				X			
(5) The development of multi-institutional arrangements for the sharing of support services necessary to all health service institutions					X		X			X			X	X	X								
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(8) The promotion of activities for the prevention of disease, including studies of nutritional and environmental factors affecting health and the provision of preventive health care services							X										X	X	X				X
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Montana Health System Plan 1979
Health Status

Health Status Problem	Health Status Goal	Health Status Objectives	Recommended Actions
~~Cancer~~ Alcoholism	To reduce the incidence and prevalence of alcoholism in Montana and to reduce the number of deaths due to alcohol related causes by 10%.		**Organization of Services** Support the continued emphasis toward developing a coordinated network of services, programs and counselors to increase effectiveness and efficiency of treatment. **Public Education** Stress early intervention for appropriate screening and treatment, especially with youth. Utilize the media for referrals to community support organizations with proven success rates. **Prevention and Detection** Support the prevention strategies of the Alcohol and Drug Abuse Division of the State of Montana. **Reimbursement** Continue to encourage third party payors to provide coverage for alcohol treatment and rehabilitation. Encourage local authorities to use alcohol tax monies for alcohol programs. **Legal Changes** Support the constitutional amendment and legislative initiative to raise the legal drinking age to 19.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Clinical Cardiovascular Labs and Cardiac Surgery Facilities	Diagnosis and Treatment	Short Stay	To insure facilities offering cardiac diagnostic and surgical services achieve and maintain a high level of expertise and to systematically encourage the development of new services only when sufficient volume can be expected.	1. Through 1985, those institutions in Montana offering cardiac surgery and related diagnostic services should continue to improve their respective programs. 2. Because the Montana Deaconess Medical Center in Great Falls already has a cardiac catheterization program, they should consider developing a cardiac surgery service by 1985. 3. Where, in the opinion of the referring physicians, there is a choice in the use of clinical cardiovascular and/or cardiac surgery facilities, facilities in Montana should receive primary consideration. 4. No other facilities in Montana should develop these services unless the need for an additional service can be demonstrated. 5. By 1985, each cardiac surgery program in Montana should actively sponsor patient self-help groups such as "Mended Hearts".

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Radiation Therapy	Diagnosis and Treatment	Ambulatory Short Stay	1. That two types of radiation therapy facilities be developed into a national network of cancer care in Montana. The first, correlated cancer management facilities, should satisfy the following standards when fully operational: -Serve a population of at least 200,000 persons in a radius of 150 miles, -Treat at least 300 new cancer patients a year, and -Provide at least 6,000 treatments (patient visits) a year. The second, cooperative cancer management facilities, should be designed to satisfy the following standards: -Serve a population of at least 67,000 people in a radius of 100 miles, -Treat at least 100 new cancer patients a year, and -Provide at least 1,000 treatments (patient visits) a year. 2. Radiation therapy facilities should not be duplicated in any community in Montana.	1. That a correlated cancer management facility be developed in Missoula by 1980, if it can be shown to be economically feasible. 2. That a cooperative cancer management facility be developed in Kalispell by 1980, if it can be shown to be economically feasible. 3. By 1985, all cancer programs in Montana should foster the development of patient self-help groups.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Computerized Axial Tomography (CAT) Scanners	Diagnosis and Treatment	Ambulatory Short Stay	As planning goals, the following standards are suggested: 1. A whole body CAT scanner should operate at a minimum of 1,000 medically necessary scans per year for the first year of operation and 1,500 medically necessary scans per year for the second year of its operation and thereafter. 2. A head CAT scanner should operate at a minimum of 900 medically necessary scans per year for the first year of operation and 1,350 medically necessary scans per year for the second year of its operation and thereafter. 3. There should be no additional scanners approved unless the operators of the equipment will set in place data collection and utilization review systems and make that information available to the MHSA on an annual basis. 4. No additional CAT scanners (head and body or head only) should be approved for any geographic service area in Montana unless the utilization of each existing scanner in the geographic area will not decrease below the second year levels of (1) and (2) above as the result of the new service.	1. Through 1985 any new CAT scanners must be properly justified for placement in Montana based on the following criteria: cost effectiveness, scope and value of services, accessibility, and availability of qualified personnel. 2. Head scanners may be placed within the same service area as whole body scanners only if the new service does not decrease the total scans of the older service to a level below 1,500 scans a year or is otherwise properly justified. 3. Third-party payors should be encouraged to include whole body CAT scans as a reimburseable item. 4. CAT Scanners in private offices which are consistent with the Health System Plan should be deemed in compliance with Certificate of Need regulations for reimbursement purposes.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Computerized Axial Tomography (CAT) Scanners (continued)			Based upon these criteria, no more than three CAT scanners should be located in Montana until utilization levels can no longer accommodate patient demand for CAT services presently being provided.	
End Stage Renal Summary	Diagnosis and Treatment	Home Short Stay	1. Home self-dialysis programs should be promoted in Montana. There is a strong indication the demand for in-facility hemodialysis will increase through 1985. Because of the high cost of hospital based ESRD services and the geographic barriers limiting access to these hospital facilities in Montana, the need for home dialysis programs is evident. 2. Programs dealing with the prevention of end stage renal disease should be developed in Montana. 3. All modes of treatment and rehabilitation should be available to all individuals with end stage renal disease.	By 1985 home care programs should be developed to care for home dialysis patients, as well as to provide the whole range of social services for all ESRD patients. Facilities providing ESRD services should provide rehabilitative services or contract with agencies that provide them. To urge physicians to implement the provisions of P.L. 95-292 so payments to an individual assisting the patient in the dialysis procedures are considered a reimbursable expense. By 1980, hypertensive screening programs with methods of referral and follow-up should be developed in Montana. By 1980, educational programs directed to physicians and patients should be developed to emphasize the benefits of early diagnosis, treatment and management. Research in the field of hypertension and kidney disease should be supported to aid in the development of preventive measures against end stage renal disease.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
End Stage Renal Summary (continued)				Between 1976 and 1985, increase the number of cadaver kidneys available for use by patients for whom transplantation is the medically and personally preferable mode of treatment by encouraging the medical community to solicit donors and educating the public about the importance of kidney transplantation. By 1985, develop guidelines specifying requirements for training programs and establish standards for the certification of technicians trained in dialysis. By 1980, encourage the four existing ESRD service units to develop their own home care training programs when the volume dictates. 8y 1985, support legislation for cost-formula reimbursement from Medicare to promote reasonable reimbursement to facilities providing end stage renal disease services.
Burn Care	Diagnosis and Treatment	Short Stay	1. Presently, there appears to be no need for establishing burn care centers in Montana. 2. Hospitals serving as regional emergency medical centers in Montana should develop burn teams and burn programs to assist the attending physician (if requested) in caring for burn patients.	1. By 1985, burn units/centers serving Montana should develop air ambulance capabilities for the transfer of severely burned patient 2. By 1985, programs should be implemented to better educate physicians and other personnel involved in burn care in the treatment of burn victims.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Burn Care (continued)				3. By 1980, community education programs on fire prevention should be directed to occupational groups, households, and especially school children. Insurance companies, local service organizations and hospitals could serve as catalysts in promoting fire prevention programs.
General Hospital Acute Inpatient Services (Medical/Surgical, Pediatric and Obstetrical Beds)	Diagnosis and Treatment	Short Stay	The goal of these guidelines is to insure an adequate number of acute care hospital beds in Montana in the future without excessive duplication. Where possible, hospitals should strive to contain costs without sacrificing the quality of the services rendered.	1. The national goal of 4.0 beds per 1,000 population is not appropriate at the local level. It may have some application for planning acute care beds at the regional and state levels. The allocation of hospital beds should be based upon utilization experience. In addition, geographical and distance factors should be heavily considered. 2. Through 1985, the primary method of reducing excess hospital beds in Montana should continue to be through the review process with emphasis on the voluntary reduction of excess hospital beds. The construction or modernization of unnecessary hospital beds should be disapproved. Hospitals having excessive beds (beyond the number needed in reserve) and wishing to remodel or renovate their facilities should reduce the number of beds being maintained.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
General Hospital Acute Inpatient Services (continued)				3. Rural hospitals should be encouraged to develop comtination hospitals/long term care facilities/community health centers. The possibility of using "swing beds" should be investigated with congressional leaders. state legislators, regulatory and licensing agencies and third party reimbursement organizations. This effort should receive high priority during the upcoming year. 4. Hospitals throughout Montana should be encouraged to implement methods of sharing services and forming satellite systems whenever economically effective.
Critical Care Beds (ICC and CCU)	Diagnosis and Treatment	Short Stay	The primary goal of these guidelines is to insure that, through 1985, critical care services are available to Montanans when needed. Because of the vast distances involved, it is felt that the availability of ICU/CCU services should take precedence over cost containment considerations. That is, even through maintaining an ICU/CCU capability may not be cost effective, every hospital is obligated to provide this service to the best of its ability.	1. By 1985, the feasibility of setting up a system of remote monitoring between outlying communities and a referral hospital should be explored in order to maintain the present complement of ICU/CCU beds in small community hospitals. 2. By 1980, a program of continuing education for hospital staff members providing ICU/CCU service should be established. Backup staff members must also be trained so gaps in service are prevented. 3. By 1980, a complete inventory of critical care beds in all hospitals should be conducted by the State Agency. This inventory is to include state and federal facilities.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Critical Care Beds (continued)				4. By 1980, the State Agency should prepare a tentative set of regulations for the licensing of intensive care and coronary care units. This draft set of regulations should be forwarded to the Governing Board of the Montana Health Systems Agency for their comments. 5. Legislation should be supported to implement provisions for the reimbursement of step down care after it has been determined by the attending physician that continuous monitoring of the ICU/CCU patient is no longer necessary.
Acute Care Psychiatric Units	Diagnosis and Treatment	Short Stay	To foster the rational development of a number of regional, acute care psychiatric units in Montana hospitals to provide short term psychiatric care. As a planning goal, bed need in this plan is based on a use rate of 63.8 patient days per 1,000 population.	1. By 1980, to investigate the feasibility of establishing a short term psychiatric unit in Eastern Montana and explore alternative means of providing these services should a unit not be practical. Geographical and population obstacles warrant special consideration for Eastern Montana but this unit should be viable and capable of self support. 2. By 1985, to establish short term psychiatric units in Kalispell, Helena and Bozeman if they can be shown to be financially feasible, and to serve a sufficient population to justify at least 15 beds without jeopardizing existing services in nearby cities.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Acute Care Psychiatric Units (continued)				3. By 1980, to support legislation requiring all health insurance policies sold in Montana to include coverage of acute psychiatric services. 4. By 1980, to support legislation to emphasize the county's responsibility for paying for services provided to persons admitted to these units for commitment on an emergency basis. 5. By 1980, emphasize the importance of linkages, coordination and cooperation between acute psychiatric units and local community mental health services. Cooperation between local inpatient and outpatient programs is vital to insure complete coverage.
Clinical Laboratories	Diagnosis and Treatment	Mobile Short Stay	1. Quality laboratory services are an integral part of the health care system and should be available and easily accessible to every Montanan at a reasonable cost. 2. The State Laboratory Division, with input from an ad hoc committee of laboratory professionals, should continue to emphasize continuing education and quality assurance programs, taking care not to unnecessarily duplicate existing resources but filling gaps where they exist.	1. By 1983, the feasibility of sharing or centralizing laboratory services should be studied. Places where sharing or centralizing may be feasible are Billing, Great Falls, Missoula, Miles City, Helena and Butte. Warm Springs and Galen might consider combining their services. 2. By 1985, large hospital and large independent laboratories should consider marketing their services to physicians' offices, group practice clinics, small hospitals and small laboratories.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Clinical Laboratories (continued)			1. Initiate a cooperative effort to study the issue of licensing and certification of laboratory facilities and personnel.	
Diagnostic Imaging	Diagnosis and Treatment	Mobile Short Stay	To provide for the rational development of diagnostic imaging (radinlogy nuclear medicine, ultrasound and xeromammography) services in Montana. These services should be reasonably accessible to the population while also cost justified and non-duplicated.	1. By 1985, each diagnostic radiology facility should have equipment, staff and space commensurate with its patient load. 2. By 1980, consider developing specific guidelines for the expansion of nuclear medicine. ultrasound and xeromammography facilities.
Alcohol Services	Diagnosis and Treatment -Habilitation and Rehabilitation -Maintenance Services -Prevention and Detection -Community Health Promotion	Community Mobile Short Stay Long Stay	1. To make quality alcohol treatment services accessible to all residents of Montana at a reasonable cost.	1. By 1983, to identify and provide services to forty percent of the estimated alcohol abusers in Montana. 2. By 1985, to develop additional intermediate care beds in South Central Montana to offset the projected deficit there.
Drug Services	Diagnosis and Treatment -Habilitation and Rehabilitation -Maintenance Services -Prevention and Detection -Community Health Promotion	Community Mobile Short Stay Long Stay	1. Funding for alcohol and drug programs should not be separate at either the Federal or State level. 2. Drug programs and alcohol programs should be combined. These should be substance abuse or chemical dependency programs. 3. There should be a uniform reporting system for alcohol and drug data.	1. By 1985, information, referral, prevention and education activities should be implemented in every region, using existing alcohol programs to provide such services where there is no single identifiable drug program accessible. 2. At least one counselor in every alcohol and drug program in Montana should receive training specific to drug abuse.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Drug Services (continued)			4. The Department of Institutions should emphasize and encourage drug education and prevention activities through the school system. 5. Training should be encouraged for all rural law enforcement persons and health care providers in recognizing and dealing with drug abuse.	3. Twenty-five percent of all monies allocated to drug programs should be used for prevention and education activities. 4. Legislation should be established to allow development of a fee-for-service schedule with all monies received to be used for prevention and education activities rather than reverting to the General Fund. Along these lines, legislation should also be passed to amend Montana's Insurance Code so all rehabilitative services provided in settings other than inpatient will be reimbursed to the provider. At least 25 percent of all third-party reimbursements received should be used for prevention and education activities.
Mental Health Services	Diagnosis and Treatment -Maintenance Services -Habilitation and Rehabilitation -Prevention and Detection -Community Health Promotion	Community Mobile Long Stay	The primary goal of these guidelines is to insure that appropriate mental health services are available to all Montanans when needed.	1. By 1985, the Community Mental Health Centers, the private practice mental health providers, Warm Springs State Hospital and local and county program activities should be coordinated into a mental health network to prevent mental illness and provide care and treatment for the mentally ill 2. By 1980, a full time mental health planner should be added to the staff of the Montana Health Systems Agency.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Mental Health Services (continued)				3. By 1979, the Department of Institutions, Mental Health and Residential Services Division shall develop a comprehensive, fair, and adequate long-range funding formula to insure the existence of mental health delivery services on the community level in the State of Montana. 4. By 1985, mental health manpower within each of the 12 administrative districts of Montana shall be increased to include at least one psychiatrist and at least one half the national per capita average of all mental health team members (psychiatrist, clinical psychologist, psychiatric social worker, psychiatric nurse, other support clinical workers). 5. By 1985, all chronic mentally ill shall be identified, periodically screened, afforded the least restrictive appropriate care and treatment, and given community support services toward psychosocial, physical and mental rehabilitation, including jobs. 6. By 1980, there will be a comprehensive plan for the training and education of Montanans in mental health manpower shortage areas.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Mental Health Services (continued)				7. By 1980, each Health Systems Plan service component shall include a section analyzing the emotional impact on patients, families and other consumers. Early detection, intervention and positive preventive steps should be described to minimize emotional impairment of the citizens effected. 8. By 1980, the State Mental Health Administrator should be a qualified mental health professional with direct access to the governor and the legislature. See Acute Care Psychiatric Unit, which is a separate component.
Emergency Medical Services	Diagnosis and Treatment -Community Health Promotion -Prevention and Detection	Community Mobile Ambulatory Short Stay Free Standing Support	The following are the goals of this plan: 1. Reducing suffering, disability and death from emergency situations by assuring readily accessible, high quality Emergency Medical Services for every Montana resident and visitor. 2. Assuring adequate numbers of properly trained EMS personnel, properly staffed and equipped ambulances, properly staffed and equipped emergency facilities, and properly staffed communications equipment. 3. Assuring the most efficient organization and use of EMS resources	To achieve these goals, the following objectives are proposed: 1. Within two years, there should be established an ongoing, comprehensive training and continuing education program for EMTs, physicians, nurses and the general public. This should include regional training coordinators. 2. Within two years, there should be basic hospital-to-ambulance communications in all areas of Montana. 3. Within three years, financial support for EMS should be available to all areas of Montana on an ongoing basis so that the system do not have to rely on short-term grants.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Emergency Medical Services (continued)				4. Within two years, a State EMS plan should be developed which assesses the deficiencies and need of an EMS system in Montana, according to established criteria. The plan should incorporate: a. A survey of the geographic placement of EMS manpower and an assessment of manpower and training needs; b. An ambulance placement strategy, coupled with a plan for the development of Quick Response Units and the air transportation system; c. Minimum standards and criteria for various categories of EMS facilities and an assessment of current deficiencies; d. A delineation of the responsibilities of state and local governments in establishing and financially supporting an EMS system; e. A time-phased implementation schedule with a financial statement. 5. Within three years, evaluations of EMS systems should be conducted on an ongoing basis statewide. 6. Within 10 years, dispatching of emergency vehicles and personnel should be conducted from a central location within each EMS service area.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Emergency Medical Services (continued)				7. Within 10 years, all areas of Montana should have central telephone access to the EMS system. This access number should be 911. 8. Within two years, an initial vertical categorization of Montana hospitals should be completed by the State EMS Bureau and Montana hospitals. This categorization should be continually updated and made available to physicians as a transfer guide to EMS facility capabilities. 9. Within two years, existing preventive health education programs in Montana, both private and governmental should provide a coordinated approach in stressing the importance of safety, good nutrition, adequate exercise and proper health habits in preventing potential emergency situations such as accidents and heart disease.
Poison Control Services	Prevention and Detection -Diagnosis & Treatment	Community Short Stay	To assure that all Montanans have access to the best possible poison information and treatment services available.	1. By 1980, the poison control capabilities of all hospitals in Montana should be identified and included in the statewide Emergency Medical Systems hospital categorization process. 2. At a minimum, Missoula, Great Falls, and Billings should provide secondary poison treatment facilities. All hospitals in Montana should have at least primary poison treatment capabilities.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Poison Control Services (continued)				3. By 1985, alternative poison control strategies should be explored for Montana and the cost effectiveness of each strategy should be examined. 4. By 1985, consumer oriented education programs should he developed emphasizing poison prevention and treatment strategies for the citizenry of Montana. Existing programs should be utilized where applicable.
Blood Banking and Processing	Support Services	Free Standing Support	To maintain the current status of meeting blood needs in Montana. The two organizations currently servicing Montana should continue to be supported.	1. Through 1985, no additional blood banking service organizations should be encouraged to service Montana. The primary mechanism for accomplishing this will be through the review process, if necessary. However, non-institutional organizations are not subject to review. 2. Through 1985, the public education programs conducted by the two blood banking services should continue to be emphasized. Both blood banking services currently serving the State recognize the importance of public education and donor recruitment and will continue to emphasize these programs.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Blood Banking and Processing (continued)				3. By 1980, professional education programs for physicians aimed at the proper use of blood components should be conducted. The two blood banking services should work with the Montana Medical Association (MMA) and the active Area Health Learning Centers to sponsor such programs. 4. By 1980, continuing educational programs to train and refresh hospital personnel in compatibility testing matching techniques should be available. The two blood banking services should work with the State Medical Technologists Association (MSMT) and the active Area Health Learning Centers to make such programs available. 5. Continuing education programs for professional nurses and nursing students on such subjects as blood, blood component administration and possible reaction ramifications. These educational programs should be conducted by the medical staff or professional nurses of the Blood Banking Services in the State.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Long Term Care Facilities	Maintenance Service -Habilitation and Rehabilitation -Diagnosis and Treatment	Long Stay	1. Long term care beds should be readily and locally available to residents needing this type of care to avoid any excessive travel time to a facility and to avoid any psychological adjustments necessary by residents who otherwise would have to live far away from home. 2. The appropriate placement of long term care residents in nursing homes is to be encouraged.	1. Long term care bed construction should be discouraged for a twelve month period to avoid possible overbedding and allow sufficient time for an assessment of long term care alternative living arrangements and possible reimbursement mechanisms for this care. 2. The development of alternative to long term care facilities should be studied and be given preference over the future construction of these facilities. By 1980, the HSA should identify the various sources of federal funds to assist in the financing of retirement homes, group homes, and other less restrictive living arrangements. Programs providing seed money for the establishment of adult foster care programs, geriatric day care centers and home health care agencies should be identified and solicited. In addition, the HSA should work toward a more stable reimbursement framework for these alternatives. 3. In rural, sparsely populated communities with bed needs of less than 40, the development of combination hospital/long term care facilities should be encouraged where there is clear evidence of need. Also, if proven to be cost effective, services such as dietary or laundry should be shared between the hospital and long term care facility.

HEALTH SYSTEM	SERVICE CATEGORY	MAJOR SETTING	GOALS	OBJECTIVES
Long Term Care Facilities (continued)				4. By 1980, efforts should be coordinated between the HSA and other groups affiliated with the aged to identify the specific health problems of the elderly and the programs that could be implemented to alleviate these problems.

APPENDIX V

STATE PROGRAM DIRECTORY

HEALTH AND ENVIRONMENTAL SCIENCES, DEPARTMENT OF

DIRECTOR'S OFFICE

Room 200, Cogswell Building
Director, Arthur C. Knight, M.D. 449-2544

Information Unit
1400 11th Avenue, Hal Wheat Building
Information Officer, J. Anne Skinner 449-3763

CENTRAL SERVICES DIVISION

Room 234, Cogswell Building
Administrator, Robert A. James 449-2442

Planning and Evaluation Unit
Room 234, Cogswell Building
Chief, Robert L. Solomon 449-2442

Management Services Bureau
Room 234, Cogswell Building
Chief, Robert J. Redpath 449-2442

Records and Statistics Bureau
Board of Health Building
Chief, John C. Wilson 449-2614

Film Library
Librarian, Nancy Hampa 449-3444

ENVIRONMENTAL SCIENCES DIVISION

Board of Health Building
Administrator, Benjamin F. Wake 449-3946

Air Quality Bureau
Room 224, Cogswell Building
Chief, Michael D. Roach 449-3454

Food and Consumer Safety Bureau
Board of Health Building
Chief, Vernon E. Sloulin 449-2408

Occupational Health Bureau
Room 224, Cogswell Building
Chief, Larry Lloyd 449-3454

Solid Waste Management Bureau
1400 Eleventh Ave., Hal Wheat Building
Chief, Duane Robertson 449-2821

Subdivision Bureau
Board of Health Building
Chief, Edward Casne — 449-3946

Water Quality Bureau
555 Fuller
Chief, Donald G. Willems — 449-2406

HEALTH SERVICES DIVISION

25 South Ewing, St. John's Hospital Building
Administrator, John S. Anderson, M.D. — 449-2554

Dental Health Bureau
1400 Eleventh Ave., Hal Wheat Building
Chief, Arthur J. Terrill, D.D.S. — 449-3429

Maternal and Child Health Services Bureau
25 South Ewing, St. John's Hospital Building
Chief, Hendrika VanDrunen — 449-2554

Nursing Bureau
25 South Ewing, St. John's Hospital Building
Chief, Althea Ginnebaugh — 449-2076

Preventive Health Services Bureau
25 South Rodney
Chief, Martin D. Skinner, M.D. — 449-2645

HOSPITAL AND MEDICAL FACILITIES DIVISION

836 Front Street
Administrator, George M. Fenner — 449-2037

Emergency Medical Services Bureau
Chief, Drew Dawson — 449-3895

Facilities Licensing and Certification Bureau
Chief, Jacquelin McKnight — 449-2037

Health Planning & Resource Development Bureau
Chief, Wallace A. King — 449-3121

LABORATORY DIVISION

Chemistry Laboratory Bureau
Room 231, Cogswell Building
Chief, Walter Jankowski — 449-3644

Microbiology Laboratory Bureau
Room 139, Cogswell Building
Chief, Michael Skeels — 449-2642

LEGAL DIVISION

1400 Eleventh Ave., Hal Wheat Building
Admini rator, Sandra Muckleston 449-2630

INSTITUTIONS, DEPARTMENT OF

DIRECTOR'S OFFICE

1539 Eleventh Avenue
Director, Lawrence M. Zanto 449-3930

ALCOHOL AND DRUG ABUSE DIVISION

1539 Eleventh Avenue
Administrator, Michael A. Murray 449-2827

MENTAL HEALTH AND RESIDENTIAL SERVICES DIVISION

1539 Eleventh Avenue
Administrator, Laurance B. Carlson 449-3964

LABOR AND INDUSTRY, DEPARTMENT OF

COMMISSIONER'S OFFICE

Room 412, Employment Security Building
Lockey and Roberts
Commissioner, David E. Fuller 449-2621

Safety and Health Bureau
510 Logan Street
Chief, Max Salazar 449-3402

PUBLIC INSTRUCTION, OFFICE OF THE SUPERINTENDENT OF

SUPERINTENDENT'S OFFICE

Room 106, State Capitol
Superintendent, Geogria Ruth Rice 449-3654

BASIC INSTRUCTIONAL SERVICES

1300 Eleventh Avenue
Co-Director, Lyle Eggum 449-2418

SOCIAL AND REHABILITATION SERVICES, DEPARTMENT OF

DIRECTOR'S OFFICE

Room 301, SRS Building
111 Sanders
Director, Keith Colbo 449-5622

COMMUNITY SERVICES DIVISION

Room 205, SRS Building
111 Sanders
Administrator, Edward J. Malensek 449-3467

Aging Services Bureau
Chief, 449-3124

Child & Youth Development Bureau
Chief, Charles McCarthy 449-3724

Social Services Bureau
Chief, Norma Cutone 449-3729

DEVELOPMENTAL DISABILITIES DIVISION

Room 305, SRS Building
111 Sanders
Administrator, 449-2995

APPENDIX VI

STATE HEALTH-RELATED PROGRAM INVENTORIES

PROGRAMS OF STATE GOVERNMENT INVENTORY

Introduction

Health and health-related programs of State government will be examined in this section as prescribed by P.L. 93-641. Because of the large investment by State and Federal governments in health care, it is essential that the Preliminary State Health Plan incorporate an examination of State and Federally-sponsored health programs operating in State government agencies. This inventory will address the statutory authority, program mission, description of programs, goals and objectives, evaluation measurements (when available) and expenditures and staffing patterns.

The purposes of the inventory are to: 1) describe program functions and structure; 2) delineate State and Federal funding patterns; 3) portray the goals and objectives of health services and programs by target population; 4) serve as a data base for future program policy and program cost analyses; 5) serve as a data base for future establishment of health priorities and policies; and 6) serve as a data base for future resource allocation decisions.

Much of the information for the inventory was extracted from each agency's Executive Planning Process (EPP) report. These reports, used for the first time this year, were requested by the Governor to aid the Executive Branch in the determination of goals and priorities for the next biennium. Previously, the Executive Branch was using a bulky six-year plan. A brief statement of program mission and current goals and objectives are contained in the EPPs.

It should be noted that goals and objectives did not result in uniform statements of desired results in the inventory. In fact, many of the goals and objectives are actually program functions. However, the State Health Planning and Development Agency and Statewide Health Coordinating Council hope that by publishing this year's EPP reports, more uniform and result-oriented goals and objectives will be developed in future planning efforts.

This Plan included policy analysis as prescribed in P.L. 93-641. By utilizing the following government agency inventories, as applicable, the agency goals were examined as general statements of policy. This resulted in a measurement of the adequacy of programs in the State with a determination of their effectiveness and efficiency in providing access to quality health care at a reasonable cost.

During the development of the government agency's inventory of health programs, active participation of government agencies and organizations whose planning and program activities impact on the health status and health systems within the State was solicited. This will foster cooperation among health-related agencies. Coordinative activities should be aimed at eliminating duplicate services and developing goals and long-range actions consistent with the health priorities of the State.

PROPOSED BUDGET SUMMARY FOR HEALTH RELATED SERVICES
Montana State Government
(by Department and Division)
1979
(in millions)

Department/Division	Funding				
	State	Federal	Fees/ Local/ 3rd Party	Sub-Total	Total
Dept. Health & Env. Sci.					
Central Services Div.	$ 416,113	$ 308,377	$	$ 724,490	$
Environmental Sciences Div.	695,208	2,379,810	374,700	3,449,718	
Health Services Div.	815,206	9,267,171	22,000	10,104,377	
Hospital & Medical Facilities	344,317	1,549,938		1,894,255	
Laboratory Division*					
Legal Division	27,109			27,109	
Board of Health	5,000	3,000		8,000	16,207,949
Dept. of Institutions					
Alcohol & Drug Abuse Div.	413,367	688,726		1,102,093	
Mental Health & Res. Serv.	27,868,212	2,987,857		30,856,069	31,958,162
Dept. Labor & Industry					
Safety & Health	631,372	24,574		655,946	655,946
Office Public Instruction					
Basic Instructional Serv.	7,000			7,000	7,000
Dept. of Social & Rehab. Serv.					
Community Services Div.	1,505,225	9,986,335	1,256,506	12,748,066	
Developmental Disabilities Div.	4,903,200	3,567,262		8,470,462	21,218,528
	$37,631,329	$30,763,050	$ 1,653,206	$70,047,585	$70,047,585

* Data currently unknown

DEPARTMENT OF HEALTH
AND
ENVIRONMENTAL SCIENCES

CENTRAL SERVICES DIVISION

Statutory Authority: Section 82A, RCM 1947

Description: The Division is a coordinative and administrative unit for the other Bureaus in the Department. The Division comprises two Bureaus: the Management Services Bureau and the Records and Statistics Bureau, and two units: the Planning and Evaluation Unit and the Film Library Unit.

Proposed Budget, FY 1979: $151,000

State Funds	Federal Funds
$67,000	$84,000

Staffing: 2 FTE's

Health Education Bureau

Statutory Authority: Section 69-4110, RCM 1947

Description: The Bureau is supposed to provide technical assistance in health education to other Bureaus within the Department and to other health-related agencies and groups within and outside of State government. However, the Bureau has no staffing or budget. It exists on paper only.

Proposed Budget, FY 1979: -0-

State Funds	Federal Funds
-0-	-0-

Staffing: -0-

Planning and Evaluation Unit

Statutory Authority: Section 82A, RCM 1947

Description: The Planning and Evaluation Unit, created in 1978, provides a variety of coordinative services for the Department as a whole. It serves as a focal point for health education activities, provides staff as a hearings officer and hearings examiner, provides a film library, assists other parts of the Central Services Division with planning and evaluation, acts as the Department A-95 Coordinator, and staff represents the Department as necessary on committees and task forces.

Proposed Budget, FY 1979: $36,000

State Funds	Federal Funds
$25,300	$10,700

Film Library Budget, FY 1979: $10,675

State Funds	Federal Funds
$10,675	-0-

Staffing: 1.5 FTE's (Planning and Evaluation)

1.5 FTE's (Film Library)

Management Services Bureau

Statutory Authority: Section 82A, RCM 1947

Description: The Management Services Bureau provides, for the Department, the services listed below:

budgeting
accounting
planning
purchasing and supply
property control
shipping and receiving
printing
personnel services
mail and communication
space and building service
local health services

Proposed Budget, FY 1979:

State Funds	Federal Funds
$83,138	$147,677

Staffing: 11.65 FTE's

MANAGEMENT SERVICES PROGRAMS

Statutory Authority: Title 69, Sections 82-A-1, Chapters 41 and 44
94-5-619, R.C.M., 1947

Description: Management Services programs within the Department of Health and Environmental Sciences include the Director's office, the Information Unit, the Legal Division and the Central Services Division, which includes the Health Education Bureau, the Planning and Evaluation Unit, the Management Services Bureau, and the Records and Statistics Bureau.

Program Mission: To furnish medical supervision and administrative support to the operating public health programs and to conduct personnel administration and fiscal management by acquiring the personnel, materials, space, and services required in the operation of the departmental programs.

Goals and Objectives: The goals and objectives of the above management services programs were included in one Executive Planning Process report. They are:

a. To provide highest quality legal services and medical, technical and administrative supervision of all agency operations.
b. To develop and implement planning and evaluation systems to utilize outcome measures indicative of optimal cost-benefit and cost-effectiveness strategies.
c. To provide personnel management and staff development services through utilization of merit system and related personnel systems.
d. To provide contract and grants management to encourage maximum utilization of local health services delivery by most applicable local or regional health services delivery agency.
e. To maintain vital records for the people of Montana and provide statistical services for use in development, operation, and evaluation of health services.
f. To continue cooperation with the National Center for Health Statistics in the Cooperative Health Statistics System to insure comparability of Montana data with that of other states in the System and to develop and maintain health manpower and facility files for the use of health program planners at all governmental levels as well as for the general public.
g. To provide consultation and assistance to departmental and local health education agencies in public health education strategies, and to assist those efforts through the operation of film library and other support activities.
h. To inform the public regarding health and environmental programs and actions as mandated by the "Right to Know" provisions of the Montana Constitution.

Director's Office

Statutory Authority: Sections 82A-106 and 601, R.C.M., 1947.

Description: The Director of the Department of Health and Environmental Sciences is appointed by the Governor and serves at his pleasure. The Director is responsible for overall administration and medical supervision of the Department, serves as Secretary of the Board of Health, and is a member of the Governor's Human Services cabinet.

Proposed Budget, FY 1979:

State	Federal
$50,000	$30,000

Staffing 3 FTEs

Information Unit

Statutory Authority: Created by the Department Director, 1974

Description: The Information Unit is responsible for providing health information to the public in a coordinated and understandable manner. This responsibility involves working with Bureaus of the Department and with local health departments in preparing news releases about their activities, in communicating with and through the mass media, in preparing informational workshops and seminars, and in conducting specific health campaigns. In some cases, the Information Unit actually prepares materials for Bureaus and local health departments, but it also assists these entities in preparing their own. The Information Unit also is responsible for publishing a quarterly newsletter, Treasure State Health, about Department activities.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$20,000	$18,000

Staffing: 2.5 FTEs

Records and Statistics Bureau

Statutory Authority: Title 69, Ch. 44, RCM 1947

Description: The Bureau is responsible for the collection, compilation and maintenance of vital statistics on births, deaths, fetal deaths, abortions, mariages, and marriage dissolutions. It issues birth and death certificate duplicates, processes adoption certificates, provides data assistance to other Bureaus, publishes an annual vital statistics reference guide, and reports vital statistics to the National Center for Health Statistics System.

Proposed Budget, FY 1979: $178,000

State Funds	Federal Funds
$160,000	$18,000

Staffing: 13.5 FTE's

ENVIRONMENTAL SCIENCES DIVISION

Statutory Authority: All or portions of Title 69, 16, 27, 34, 57, 75, R.C.M., 1947

Description: The Environmental Sciences Division provides administration for six bureaus: Air Quality, Food and Consumer Safety, Occupational Health, Solid Waste Management, Subdivision, and Water Quality.

Program Mission: The program mission of the Division is "to protect our most important resource - human health - from the increasingly apparent problem of hazardous substances in the environment, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of the state, and facilitate the enjoyment of the natural attractions of the state."

Goals and Objectives: Current goals and objectives of the Division, as listed in the Executive Planning Process:

a. To secure and maintain for every citizen in the state a safe and adequate water supply.
b. To secure and maintain a high level of food protection in a food processing and retail establishment.
c. To secure and maintain safe air for breathing.
d. To secure and maintain safe and adequate sewage disposal, hazardous wastes, and garbage and trash disposal throughout the state.
e. To secure and maintain every work place free of occupational disease.
f. To prevent and control vector-borne disease.
g. To prevent and control deterioration of surface and ground waters throughout the state.
h. To prevent and control unnecessary degradation of air quality throughout the state.
i. To provide a system of surveillance and monitoring of all areas of the environment where any potential public health problem exists.
j. To provide technical assistance, consultation and guidance to individuals, local agencies, and other state departments.
k. To provide educational materials, personal visits, and communications to all citizens of the state requesting assistance in environmental matters.
l. To perform studies and examinations in any area relative to any component of the environment which may be suspected of causing or contributing to ill health or deterioration of the general environment.

m. To provide for surveillance of hotels, motels, jails, state institutions and swimming pools.
n. To reduce accidents and death rates caused by products used in and around the home and for recreational purposes (Consumer Product Safety).

Proposed Budget, FY 79:

State: $80,124 Federal: $10,540

Staffing: 4.25 FTE's

Air Quality Bureau

Statutory Authority: Sections 69-3906, 3923, R.C.M., 1947
Federal Clean Air Act

Description: The Air Quality Bureau is responsible for protecting human health and welfare, animal and plant life and property from dangerous and interfering levels of air contaminants. To perform this responsibility the Bureau has four sections: enforcement, engineering, ambient air monitoring, and technical services.

The enforcement division uses the Bureau's regulatory powers to enforce air pollution laws and to issue permits. An engineer is assigned to each of the five Air Quality Control Regions in Montana. These engineers are responsible for construction permits, tax certifications, environmental impact statements, plant inspections, and source testing.

The ambient air monitoring section is responsible for air quality monitoring, equipment maintenance and repair, the development of ambient air quality standards and criteria, responding to hazardous waste in the air, and coordination of chemical laboratory work.

The technical service section provides technical assistance in the area of meteorology, statistics, diffusion monitoring, data processing, modeling, stagnation, coal fields and energy areas, transportation, air quality maintenance plans, and other activities.

In addition, the Air Quality Bureau has branch offices in Kalispell and Billings and conducts numerous special projects, including a two-year, federally-funded Montana Air Pollution Study.

Proposed Budget, FY 79:

State: $131,845 Federal: $1,179,204

Staffing: 22.38 FTE's

Food and Consumer Safety Bureau

Statutory Authority: Sections 16-4205, 16-4209, 27-611, 27-701 through 27-723, 34-301, 69-4110, 69-4118, 69-7101, 69-5603 and R.C.M., 1947 and 16-2.14 (2)-S14120ARM

Description: The Food and Consumer Safety Bureau is responsible for providing training and consultation to local sanitarians and to 29 local Health Departments in the State in six functional programs.

The goals and objectives for each of the six programs, as they were outlined in the Executive Planning Process report, will be reported in each program section.

1. Public Establishments Program (including public food service establishments, bars, general public housing, hotels and motels, trailer courts, campground and migrant worker housing and the related environment.)

Goal: To protect public health through the prevention of unsanitary, unhealthy and environmentally unacceptable and degrading conditions in public establishments.

Objectives:

1. To license all establishments;

2. To implement an adequate survey program for all licensed establishments;

3. To investigate all reports of food-borne illness which may be associated with licensed establishments;

4. To provide consultative, educative, administrative and evaluative services to 29 local public health agencies and the 7,113 operations currently subject to public health protection inspections and evaluations.

2. Jails and Institutions Program (including schools, Job Corps camps, homes for the developmentally disabled, and homes for the emotionally disturbed).

Goal: To ensure the environmental quality of jails and institutions.

Objectives:

1. To provide public health surveillance to the 16 state institutions and approximately 100 local jails throughout the state.

   a. Accomplish one routine inspection for each facility per year.

   b. Accomplish reinspections in ten percent of all facilities per year.

2. To provide food service training to those institutions and larger jails needing or desiring this service.

3. To provide training to local sanitarians in their duties relating to this program and other programs of the Bureau.

3. Food, Drugs and Cosmetics Program

Goal: To protect the consumer from adulterated or misbranded foods, drugs or cosmetics.

Objectives:

1. To inform and educate consumers, retail store operators, and manufacturers in preventing food, drug and cosmetic product adulteration and/or misbranding.

2. To provide thorough investigations of all reports of adulterated and/or misbranded foods, drugs or cosmetics.

3. To prevent damaged, hazardous, and distressed consumer products (i.e., accidents, floods, fire damaged products) from being used for humans and animals.

4. To provide complete, thorough inspections for all food, drug and cosmetic manufacturers and warehouse storage and labeling reviews of proposed labels on products manufactured in the state.

4. Consumer Product Safety Program

Goal: Reducing accidents resulting from the use of consumer products through informational, educational and investigative activities.

Objectives:

1. To acquaint consumers with cause and prevention information in regard to consumer products (through increased usage of media, seminars, etc.)

2. To improve consumer knowledge of what to do - who to contact if a consumer commodity has or is expected to cause or result in injury and respond to consumer complaints regarding such com-complaints or injuries.

3. To affect quality of consumer goods in Montana through improved inspection, injury education, information, and sampling of such goods.

4. To increase involvement of local health jurisdictions in an active consumer safety program on a local level.

5. To improve reporting of product relative accidents due to consumer products.

5. Vector Control and Pesticides Program

Goal: Protecting the public health by control of insect and rodent populations.

Objective:

1. To increase the effectiveness and environmental soundness of local vector control services through provision of local organizational assistance and through consultive, administrative, educational, and technical laboratory, and field services designed to extend local technical, financial and biological control resources.

6. Swimming Pools Program

Goal: To ensure the environmental quality and the safety of swimming pools.

Objectives:

1. To review and approve plans.
2. To provide surveillance through local health departments.
3. To provide training and technical assistance for pool managers.

Output and Effectiveness Measures Used by the Bureau Include:

1. Periodic surveys of food service establishment programs by the state office in every health jurisdiction to ensure standard procedures are followed by each sanitarian.
2. Evaluation of Sanitarian Education Conference.
3. Acceptance of services by local health departments.

Proposed Budget, FY 1979:

State	Federal
$117,363	$92,039

Staffing: 14 FTEs

Occupational Health Bureau

Statutory Authority: Section 16-2.14(6) - S14270, S14280, S14290, S14300, S14310

Description: The Occuaptional Health Bureau is responsible for protecting workers from exposure to irritating or toxic materials, and to protect workers and the public from exposure to unnecessary radiation and unhealthy levels of noise. The Bureau accomplishes these responsibilities through the following activities:

a. Inspecting governmental (state, county, city) work places for worker exposure to irritating or toxic materials including air contaminants, noise, contact exposures or ultraviolet light exposures;
b. Inspecting other work places for worker exposure to irritating or toxic materials on request or as an investigation of a complaint;
c. Providing technical assistance to communities in writing noise control ordinances, training noise control personnel, selection of sound level instruments, etc., as part of an overall noise control program;
d. Responding to all emergencies in the state resulting from loss of control of radiation materials or other hazardous materials;
e. Inspecting and monitoring all electronically-produced radiation such as that from medical and dental x-ray, fluoroscopes, reactors, isotopes, microwaves, lasers, etc.;
f. Inspecting well logging, uranium mines, design radiation;
g. Controlling radiation from by-product materials;
h. Providing technical assistance in reducing exposure to radiation and irritating or toxic materials.

Proposed Budget, FY 1979:

State: $76,733 Federal: $5,657

Staffing: 5 FTEs

Solid Waste Management Bureau

Statutory Authority: Title 69, Chapters 40, 60, and 68, R.C.M., 1947.
Montana Administrative Codes: 16-2.14(2)-S14261
16-2.14(2)-S14100

Description: The Solid Waste Management Bureau protects the public health by ensuring that solid wastes are properly disposed. As primarily a regulatory agency, the Bureau works closely with county commissioners, local health officers, sanitarians, and county attorneys in the enforcement of laws pertaining to solid waste disposal. The Bureau has six functional areas: sanitary landfills and other disposal methods, refuse disposal districts, resource recovery, junk vehicles, hazardous wastes, and training and information.

In regards to sanitary landfills, the Bureau approves landfill plans and sites, and periodically inspects the operation of these disposal areas. The Bureau also will investigate any complaints. State law requires that anyone operating a refuse disposal area must obtain a license from the local, county, or district board of health. The Bureau also helps with the establishment of refuse disposal districts.

Under the Junk Vehicle Act of 1973, each motor vehicle wrecking facility in the state must be licensed by the Department of Health and Environmental Sciences. Inspections of wrecking facilities are conducted by the Solid Waste Management Bureau and local sanitarians. Each county is required to provide a free junk vehicle graveyard to which anyone can deliver a junk vehicle. The Bureau is then responsible for the final disposition of accumulated junk vehicles through contracts with private firms. The junk vehicle program is funded by a special fee on motor vehicle titles and from the sale or recycling of junk vehicles.

The resourse recovery section of the Bureau is responsible for recycling, source reduction and energy production.

In hazardous wastes, the Bureau conducts emergency response to hazardous materials episodes, operates and controls hazardous waste storage and disposal, investigates waste pesticide land disposal techniques, and performs statewide surveys and surveillance of hazardous waste disposal by hospitals and industries.

In the area of training and public information, the Bureau puts out training films, pamphlets and news releases and provide safety courses, as well as other activities.

Proposed Budget, FY 79:

Fees: $374,700 Federal: $210,290

Staffing: 11 FTE's

Subdivision Bureau

Statutory Authority: Sections 69-5001 through 69-5009, R.C.M., 1947.

Description: The Subdivision Bureau regulates the sales of subdivided land, which is defined as any division of land that creates one or more parcels of less than 20 acres. In regulating such sales, the Bureau works with County Clerk and Recorders and Local Planning Boards.

The three functional sections of the Bureau are sanitary engineering, community assessment and development, and systems development and evaluation.

The Bureau has a branch office located in Kalispell.

Basically, the Bureau and local planning boards, review plans for water supply, sewage disposal, solid waste disposal, storm drainage, soil mechanics, geology, hydrology, dust control, and flood plains.

Proposed Budget, FY 79:

State: $67,007 Federal: $135,162

Staffing: 8.5 FTE's

Water Quality Bureau

Statutory Authority: Sections 69-4801 through 69-4827, R.C.M., 1947

Description: The Water Quality Bureau is responsible for the prevention and correction of water pollution.

To carry out this responsibility, the Bureau has nine sections:

1. Municipal Water Supply, including the review of municipal water supply plant, annual inspection of water supply systems serving the public, and consultation with local operators on water supply problems.

2. Sewage Disposal, including the review of sewage disposal plans, inspections of sewage disposal sites, and provisions of assistance and training to operators.

3. Municipal Construction Grants for Sewage Disposal. In a liaison capacity with the Federal Environmental Protection Agency, the Bureau establishes priorities and reviews applications, facility plans, construction plans and specifications for municipal construction grants. It also assists the grant applicants.

4. Industrial and Municipal Permits, including the issuing of waste discharge permits, monitoring the waste discharge of municipalities and industrial plants to ensure compliance, and reviewing plans for waste discharge compliance with Federal laws.

5. Stream Monitoring, including stream sampling and water pollution studies.

6. Water Quality Management Monitoring, including inventorying and sampling testing streams to determine specific water pollution problems and recommending areas for water quality improvement.

7. Water and Wastewater Operator Certification, including the training, licensing, and examining of local water operators.

8. Agricultural Wastewaters, including issuing permits to feedlot and irrigation operators and erosion control.

9. Enforcement, including assuring permit compliance, investigating complaints and water quality standard violations.

In addition, the Bureau has branch offices in Kalispell and Billings and conducts a number of special projects.

Proposed Budget, FY 1979:

State: $222,136 Federal: $746,918

Staffing: 35.75 FTEs

HEALTH SERVICES DIVISION

Statutory Authority: 82A-601

Description: The Health Services Division is charged with the overall administration and coordination of four bureaus: Dental Health, Maternal and Child Health Services, Nursing, and Preventive Health Services.

Program Mission: The Program Mission of the Health Services Division, as stated in the Executive Planning Process Report, is "To protect and improve the health of the people of Montana through positively influencing the provision of community and individual health services not elsewhere available. These activities include the provision of preventive, therapeutic, consultative and supportive health services to individuals and communities."

Goals and Objectives: The Goals and Objectives provided by the Division in its Executive Planning Process Report are as follows:

a. To provide maternity and infant health services to 1,200 high-risk pregnant women and 1,200 infants per year.
b. To provide case management, clinic evaluations, and financial assistance to 1,100 children per year with physical handicapping conditions.
c. To provide investigation of suspected non-infectious disease hazards, including environmental carcinogens, in order to develop effective preventive methods.
d. To provide family planning services to 22,800 individuals per year.
e. To provide primary health care or well-child services to 10,000 children per year.
f. To provide nutrition counseling and food to 2,000 pregnant and lactating women, 10,000 preschool children, and 300 school-age children per year.
g. To provide dental health education and preventive services to 55,000 children and dental care to 2,000 children per year.
h. To assist communities to provide screening, patient education, continuity and coordination of care, and community services for individuals with actual or suspected Diabetes Mellitus, Hypertension, and certain cancers.
i. To provide continuing education and specialty consultation to local health personnel.
j. To manage the screening and follow-up for inborn errors of metabolism for all children born in Montana hospitals.
k. To provide health screening of 2,500 Medicaid children per year.

The following narrative will present a brief overview of each bureau's program(s), budget, staffing pattern, and method of measuring program output and effectiveness.

Health Services Administration of Division

Statutory Authority: Title 69
R.C.M. 1947

Description: This management group works with Health Services bureau chiefs, program managers, and local health officers to establish planning criteria and evaluation techniques and standards. They also provide assistance for ensuring attainment of goals and objectives of the organization. Administration plays an increasing role as community level emphasis includes the provision of preventive, therapeutic, consultative, and supportive health services. Through coordinating and integrating resources, the provision of community health services is more available to protect and improve the health of Montana citizens.

Evaluation:
--Number of programs in performance standards.
--Number of programs clearly demonstrating declared effectiveness.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$177,157	$139,977

Staffing: 9.0 FTE's

Maternal and Child Health Services Bureau

1. Handicapped Children Service

Statutory Authority: Title 69, Chapters 41, 67 and 69
R.C.M. 1947

Description: The Handicapped Children Service Program is primarily responsible for the provision of a broad spectrum of medical services to children with handicaps of a chronic nature and newborn infants in need of special intensive medical care. Whenever possible, an interdisciplinary team approach is used for diagnosis and evaluation. A comprehensive evaluation includes the following:

--health assessment
--medical evaluation
--social assessment
--psychological assessment
--vocational assessment

These services are generally purchased from and through private medical care specialists.

Secondary services include prevention activities, health and nutritional counseling, and follow-up in addition to assisting families in eliminating factors which interfere with receiving medical care. The indicated services should play an important role in reducing the incidence of debilitating health problems to an increasing number of children.

Evaluation:
--645 children evaluated
--628 children receiving program assistance for medical care
--Transportation of 55 newborns

Proposed Budget, FY 1979:

State Funds	Federal Funds	Fees
$239,038	$814,949	$17,000

Staffing: 16.25 FTE's

2. Maternal and Child Health Projects

Statutory Authority: Title 69, Chapter 41 and 67
R.C.M. 1947

Description: The Maternal and Child Health Program provides health service to high risk pregnant women, infants, and children through health screening, consultation and education, referral, treatment, and follow-up services. In addition, the program provides screening and follow-up for inborn errors of metabolism for all children born in Montana hospitals. These services are provided through contracts with local health providers, health departments, and by referral to appropriate specialists.

Evaluation:

- --Number of children screened for unsatisfactory health conditions including inborn errors of metabolism, handicapping conditions, and general health.
- --Number of children referred for further diagnosis and medical treatment.
- --Number of high risk mothers and infants under managed health care during prenatal period.
- --Number of pre-school children enrolled in well-child programs.
- --Percent of all screened children with identified health problems who are confirmed to be under appropriate medical management.
- --Percent of target area high risk population (where high risk birth occurs) who were under prenatal managed health care.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$44,870	$759,774

Staffing: 6.5 FTE's

3. Family Planning Program

Statutory Authority: Title 69, Chapters 41, 45, 61, 67 and 69 R.C.M. 1947

Description: The Family Planning Program is responsible for the provision of family planning information, education, and health services on request. Through supplying these services, women are assisted in limiting and spacing children, reducing the incidence of premature births, and birth defects, and increasing preventive health measures. This effort is in accord with the national endeavor to reduce unwanted, premature, and defective births with special emphasis on the increasing incidence of teenage pregnancies. Thus, this program plays a significant role in the preventive health planning effort.

Evaluation:

- --Number of clients served by income level.
- --Number of clients receiving diagnostic tests for cancer and venereal disease.
- --Number of clients referred for other professional care.
- --Percent of all female clients not desiring children who do not become pregnant while enrolled in the program.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$43,830	$1,125,154

Staffing: 12.66 FTE's

4. Nutrition Program

Statutory Authority: Title 69, Chapters 41, 67 and 69
R.C.M. 1947

Description: The Nutrition Program provides health and nutritional services to families below the 80% median income guidelines. This program is coordinated with programs in the Department of Health and the Department of Social and Rehabilitation Services and involves Detection, Family Planning, Handicapped Children, Licensed Day Care Centers, Group Homes, and all Maternal and Child Health programs. Services include counseling, nutritional food packages, and education in nutrition and health care. Training and consultation workshops are furnished to public health professionals. The population served is pregnant women, women in childbearing years, and infants and children of high risk groups. Much effort is aimed toward reducing the number of children who experience health problems and/or developmental disabilities due to poor nutrition after birth or poor nutrition of the mother during the gestation period. This is in harmony with the national undertaking. The Nutrition Program improves the health status of Montana's specified women and children by reducing the prevalence of iron deficiency anemia, obesity, underweight, and other nutrition related health factors.

Evaluation:

- --Number of women, infants, and children receiving nutritional services.
- --Number of women, infants, and children receiving supplemental foods.
- --Number of women, infants, and children receiving meals in a nutritional management setting.
- --Percent spread (indicating improvement) between infants and children excessively over/underweight or anemic on initial contact and those who exceed standards on subsequent contacts.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$8,408	$6,018,110

Staffing: 17.99 FTE's

Dental Health Bureau

Statutory Authority: Title 69, Chapters 41, 67 and 69
R.C.M. 1947

Description: The Dental Health Bureau is responsible for providing dental health services to Montana's children by coordinating efforts in several elementary schools. Through a comprehensive, preventive dental care program, low income children are receiving professional care. There has been a significant impact on the health status of children served in the flouride (preventive) program.

Evaluation:
--Number of children receiving dental care assistance.
--Number of children receiving dental prevention training.
--Percent of children served by severity of teeth and gum condition.

Proposed Budget, FY 1979:

State Funds	Federal Funds	Fees
$35,224	$91,835	$2,500

Staffing: 3.0 FTE's

Nursing Services Bureau

Statutory Authority: Title 69, Chapters 41, 67 and 69
R.C.M. 1947

Description: The Nursing Services Bureau provides consultation, continuing education opportunities and supervision to community and school nursing services through the Bureau and traveling nurse consultants. This coordinating body for public health and school nurses is increasing its role to include preventive health and home health care.

Evaluation:
--Number of nurses served.
--Number of hours of consultation per nurse served.
--Number of home health agencies added.
--Percent of state population covered by home health services.

Proposed Budget, FY 1979:

State Funds	Federal Funds	Fees
$88,578	$52,967	$2,500

Staffing: 6.5 FTE's

Preventive Health Services Bureau

Statutory Authority: 82A-601

Description: The Preventive Health Services Bureau has the responsibility for all immunization activities, venereal disease control, tuberculosis control, epidemiological surveillance and/or follow-up of all communicable diseases in Montana as well as chronic disease prevention and special investigation of all suspect disease hazards. There are three principal areas of involvement by the Bureau: Communicable Disease Control, Chronic Disease Control and Special investigations. The Special Investigation section addresses problems related to the occurrence of specific, generally non-communicable diseases or possible health threats.

The two principal areas of involvement will be subsequently reviewed and will include the Executive Planning Process report's Mission Statements and Goals and Objectives in addition to program descriptions, budget and staffing patterns.

Program Mission: The Program Mission of the Communicable Disease Control Section, as stated in the Executive Planning Process report is, "To protect and improve the health of the people of Montana through prevention and control of communicable (infectious) disease."

Goals and Objectives:

a. To assure adequate treatment and necessary epidemiologic investigation for all cases of infectious ("active") tuberculosis; and identify and preventively treat all persons at high risk of developing tuberculosis.

b. To assure provision of adequate, appropriate, and accessible therapy and preventive (epidemiologic) services to all patients with venereal diseases, principally gonorrhea and infectious syphilis.

c. To prevent any cases or outbreaks of measels, rubella, congenital rubella, polio, tetanus, whooping cough and diphtheria through appropriate immunization of all school children and 90% of preschool age children, and through provision of necessary vaccines and epidemiological services.

d. To maintain surveillance on reportable communicable diseases, provide epidemiologic investigation and analysis as indicated, and to transmit this information in a meaningful form at regular intervals to all persons in the state concerned with the detection, investigation, treatment or prevention of these diseases, and to institute or encourage central measures as necessary.

e. To provide quality diagnostic microbiology laboratory services necessary for the detection, therapy, investigation and prevention of communicable diseases.

f. To provide investigation of suspected non-infectious disease hazards, including environmental carcinogens, in order to develop effective preventive methods.

g. To assist communities to provide screening, patient education, continuity and coordination of care, and community services for individuals with actual or suspected Diabetes Mellitus, Hypertension, and certain cancers.

A. Communicable Disease Control

Statutory Authority: Title 69, Chapters 41, 43, 45, 46, R.C.M., 1947

1. Immunization Program

Description: The goal of this program is to prevent the occurrence of poliomyelitis, rubella, congenital rubella, rubeola, diphtheria, tetanus, and whooping cough through immunization of pre-school and elementary school children. Vaccine and assistance is provided to local health departments, Indian Health Service, Day Care Center, Sunday Schools, Title I Schools, and Well Child Clinics for use in regularly scheduled immunization programs. In addition to the aforementioned direct service, the bureau also receives reports on the occurrence of any of the six diseases (listed above) from private physicians, local health officers, public health nurses, schools, laboratories, and other sources. These data are used to identify communities where a concentrated immunization program is needed, or where prompt investigation is necessary for effective disease control (outbreak control).

Proposed Budget, FY 1979:

State Funds	Federal Funds
$750	$107,813

Staffing: 4.6 FTE's

2. Venereal Disease Control Program

Description: The goal of this program is to reduce and eventually eradicate venereal disease in Montana. This is primarily an educational program directed toward groups and communities. Much of the educational effort is directed at informing younger people about the symptoms of venereal disease and treatment services in their area. In addition to the above, the bureau provides educational pamphlets, lectures, movies, and technical and medical advice regarding venereal disease and maintains a toll-free statewide "VD Hotline" as a service to anyone seeking information about venereal disease. Also, surveillance and tracing activities are an important part of controlling the spread of venereal disease through the cooperation of the entire medical community, as well as encouragement and support of acceptable venereal disease clinics (and screening activities).

Proposed Budget, FY 1979:

State Funds	Federal Funds
-0-	$71,867

Staffing: 2.60 FTE's

3. Tuberculosis Control Program

Description: The goal of this program is to control and prevent active tuberculosis (TB) and reduce mortality from TB. The primary function of the Bureau in this program is to coordinate activities of local health departments and Indian Health Departments and Indian Health Services in diagnosing active TB cases and ensuring that the necessary medical and epidemiologic services are available to prevent the spread of TB. All cases of TB must be reported and investigated. The Bureau maintains evaluative statistical data on the incidence and control of TB.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$31,313	$26,919

Staffing: 3.40 FTEs

4. General Communicable Disease Control Program

Description: The purpose of this program is to promote the control of focal or epidemic occurrence of diseases that are considered hazardous to the public health. This program serves communities rather than individuals, and is directed toward the prevention of communicable diseases through technical and professional consultation with health departments, doctors, and others, and also through education and information of the general public. Whenever a serious outbreak of a communicable disease occurs, coordinated special investigations are conducted and control measures are implemented. Diagnostic and therapeutic assistance is provided by the Bureau.

Proposed Budget, FY 1979:

	State Funds	Federal Funds
Biological	$ 3,000	$ 1,962
Communicable Disease	$10,465	$12,419

Staffing: 1.40 FTE's

A. Chronic Disease Control and Special Hazards Investigation

Statutory Authority: 69-4110(2), (see also Chapters 41 and 45, R.C.M., 1947)

Program Mission: To protect and improve the health of the people of Montana through prevention and control of chronic disease.

1. Chronic Disease Control Program

Description: The purpose of this program is to reduce the mortality and morbidity caused by chronic disease, particularly hypertension, diabetes mellitus, heart disease, (including rheumatic heart disease) and cancer. This is primarily an educational program directed at communities. The Bureau assists hospitals, local health personnel, and other community groups to develop education programs, screening programs, follow-up, and general planning and strategy.

Proposed Budget, FY 1979:

	State Funds	Federal Funds
Chronic Disease	$28,783	$ 1,000
Diabetes Mellitus	$12,694	$ 1,400
Hypertension	$17,402	$34,225
Rheumatic Fever Prevention	$ -0-	$ 3,500

Staffing: 3.4 FTE's

2. Special Investigations

Description: Special investigations are conducted as necessary and are usually not communicable diseases. They usually involve the Bureau Chief as a consultant to another bureau or agency in designing a study, i.e., possible relationship of environmental pollution to respiratory diseases (e.g., lung cancer).

Proposed Budget, FY 1979:

State Funds	Federal Funds
$2,000	$500

Staffing: -0- FTE's

Administration of Bureau

Description: The responsibility of the Bureau Chief and support staff is to amend existing or initiate new legislation to further the Bureau's objectives. Also, they manage fiscal, personnel, and other management matters and ensure delivery of preventive health services.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$71,694	$2,800

Staffing: 2 FTEs

HOSPITAL AND MEDICAL FACILITIES DIVISION

Statutory Authority: 69-7001, 69-7002, 69-7003, 69-7010, 69-3601, 69-3613, 69-5201 through 5220, 69-4110.1, RCM, 1947.
PL 87-92, PL 93-641.

Description: The Hospital and Medical Facilities Division comprises three Bureaus: the Emergency Medical Services Bureau, the Health Planning and Resource Development Bureau, and the Licensing and Certification Bureau. The Division Administrator coordinates and provides support services to the Bureaus.

Emergency Medical Services Bureau

Statutory Authority: Title 69, Chapters 36, 70 and 84, RCM, 1947

Description: The Emergency Medical Services Bureau is responsible for developing and coordinating all facets of a statewide emergency medical services system.

Program Mission: The establishment and continuation of high quality, comprehensive statewide emergency medical system to reduce mortality and morbidity of Montanans and visitors.

Goals and Objectives: The goals and objectives of the program, according to the Executive Planning Process, are:

a. To enforce the ambulance licensing law, including annual inspections of 106 services and establishment of a comprehensive emergency transportation system (air, ground and water).
b. To implement the new Emergency Medical Technician Certification program, including testing for Montana Board of Medical Examiners.
c. To provide federal grant funding to local governments for equipment purchases and other activities to improve local/regional EMS systems in accordance with guidelines of the federal granting agency--DHEW.
d. To develop EMS systems of care for critically injured patients in total cooperation with organized physician groups and other health care providers in Montana to reduce mortality/morbidity.
e. To establish excellent emergency medical training and continuing education programs for emergency medical technicians, physicians, nurses, public safety personnel and the general public (public information and education).
f. To provide technical assistance to local governments, hospitals, EMS Councils, ambulance services and others.

g. To establish an adequate evaluation and data collection system for determination of need, problem areas, cost allocation, program planning and system effectiveness.

Evaluation: The Bureau is in the process of establishing an evaluation system for emergency medical services that will include measures of:

a. Ambulance response times, nature and scope of patient complaints, and pre-hospital treatment procedures.
b. Nature and scope of critical illnesses and injuries treated in Montana's hospitals, including patient outcome, transfer patterns and length of stay.

The evaluation system, however, depends on obtaining reliable data from ambulance services and hospital medical records departments.

Proposed Budget, FY 1979: $867,274

State Funds	Federal Funds
$155,774	$711,500

Staffing: 12.54 FTE's

Licensing and Certification Bureau

Statutory Authority: Title 69, Chapter 52, RCM, 1947.
Federal Titles XVIII and XIX (Medicare and Medicaid)

Description: The Licensing and Certification Bureau inspects and licenses all hospitals, nursing homes and home health agencies, infirmaries and outpatient clinics within the state, in compliance with state medical facilities licensing codes. It also surveys those institutions or agencies requesting certification under Medicare and Medicaid.

Program Mission: As stated in the Executive Planning Process, the mission of the Bureau is "to license all health facilities and services, as required by State statute, and to survey and certify or recommend certification, at least annually, of all providers of Medicare and Medicaid services."

Goals and Objectives: The Executive Planning Process lists the following goals and objectives for the Licensing and Certification Bureau:

a. To provide for continuing public safety and welfare through the health facilities licensing sub-program.

b. To assure that quality patient care is provided in a safe environment and in compliance with the conditions of participation for Titles XVIII and XIX.

c. To respond to the public by investigating any complaints about health care providers under the Bureau's jurisdiction.

Proposed Budget, FY 1979: $487,986

State Funds	Federal Funds
$50,524	$437,462 (still being negotiated)

Staffing: 21.08 FTE's

Health Planning and Resource Development Bureau

Statutory Authority: 69-4110.1, 69-5212 and 69-5219, RCM 1947
PL 93-641

Description: The Health Planning and Resource Development Bureau (also known as the State Health Planning and Development Agency or SHPDA) is responsible for coordinating all health planning and implementation activities within the State, with special emphasis on State government programs.

Program Mission: Federal legislation (PL 93-641) mandates for a State Health Planning and Development Agency (SHPDA) which shall be an arm of State government designated by the Governor "to conduct health planning activities of the State" and implement planned objectives relating to State government.

Goals and Objectives: The current goals and objectives of the Bureau, as outlined in the Executive Planning Process, are to perform the functions of a State Health Planning and Development Agency (SHPDA) as specified in PL 93-641. Those functions include:

a. Writing a State Health Plan (SHP) and a State Medical Facilities Plan (SMFP) which address cost containment in health care, the need for health services, the proper delivery of health services, the proper distribution of health resources, an analysis of state health policy, and an inventory of medical facilities and services.
b. Implementing those parts of the SHP and SMFP which relate to the government of the State.
c. Administering a State Certificate of Need Law and Section 1122 of the Social Security Act.
d. Collecting and coordinating the data necessary for health planning and health resource development.
e. Administering Title 16 of PL 93-641 (Hill-Burton), relating to medical facilities construction.
f. Administering the construction portion of the State Hospital and Medical Facilities Licensing Act.
g. Coordinating the health planning activities of other state government agencies, private health agencies, and health providers. In particular, coordinating with the Montana Health Systems Agency, also mandated under PL 93-641.

Proposed Budget, FY 1979: $538,995

State Funds	Federal Funds
$138,019	$400,976

Staffing: 15.48 FTE's

LABORATORY DIVISION

Statutory Authority: 69-4110 , RCM 1947
Montana Administrative Codes:

16-2.18(6) - S1820, S1840
16-2.22(1) - S2200
16-2.26(1) - S2600
16-2.26(2) - S2610
16-2.26(2) - S2620

Description: The Laboratory Division is responsible for overall administration and coordination of two Bureaus: the Chemistry Laboratory Bureau and the Microbiology Laboratory Bureau. However, at this time, the Division Administrator position is vacant and the Division has no budget or staffing separate from that of the two bureaus.

Chemistry Laboratory Bureau

Description: The Bureau provides laboratory services and consultation to programs of the Environmental Sciences Division and serves as a State reference laboratory for difficult and unusual procedures.

Goals and Objectives: The goals and objectives as stated in the Executive Planning Process report are:

- Analyze air, water, food, occupational health, and other samples submitted by or through the Environmental Sciences Division.
- Maintain legally defensible chain-of-custody on samples involved in enforcement.
- Analyze private drinking water samples.
- Develop and administer a certification program for laboratories performing chemical analyses of public water supplies.
- Increase reliability of data (quality control) and laboratory efficiency.
- Provide chemical consultation.
- Research and develop new analytical methods.
- Conduct training course in chemical methods for waste water operators and private laboratory analysts.

Proposed Budget, FY 1979:

	State Funds	Federal Funds	Other
	$65,984	$125,311	$20,080

Total Funds: $211,375

Staffing: 10.8 FTE's

Microbiology Laboratory Bureau

Description: The Microbiology Laboratory Bureau has four functions:

1. To provide laboratory testing services in support of communicable disease control and environmental sciences programs.

2. To provide training and consultation for local laboratory personnel in support of the hospital and medical facilities and manpower program.

3. To approve laboratories for performance of microbiology and premarital serology, as required by State law.

4. To certify laboratories engaged in microbiological analysis of drinking water, as required by the Safe Drinking Water Act.

Laboratory services are offered for tests which cannot be performed practically by local laboratories, for specimens referred to the State Laboratory for confirmation or consultation and for communicable disease investigation or surveillance by State or county public health officials. These include clinical, bacteriology, virology, serology, mycobacteriology (TB), mycology, parasitology, and food and water microbiology. Water laboratory certification is carried out by regular on-site inspections and performance review. Approval of laboratories for premarital and prenatal serology is accomplished through a direct proficiency testing program. Training and consultation for local clinical laboratory personnel are provided in the form of bench training at the State Laboratory, workshops in outlying communities and other continuing education activities. Technical assistance is also provided in support of the work of the Bureau of Licensing and Certification.

Goals and Objectives: The Bureau's goals and objectives were included in the Executive Planning Process report for the Health Services Division.

Proposed Budget, FY 1979: $310,047

State Funds	Federal Funds	Other
$109,401	$136,646	$64,000

Staffing: 17.2 FTE's

LEGAL DIVISION

Statutory Authority: Section 82A, RCM 1947

Description: The Legal Division represents the Department in all legal matters and provides legal opinions to the Bureaus of the Department on request.

Proposed Budget, FY 1979: $27,109

State Funds	Federal Funds
$27,109	0

Staffing: 7.5 FTE's

b. Control state matching funds for construction of water pollution control facilities.
c. Establish water pollution standards and classification of water.
d. Hold hearings on establishment of water classification standards.
e. Hold hearings on enforcement of water pollution standards.
f. Hold hearings on emergency procedures used to control water pollution.

6. Have general supervision over public waters.

7. Direct disclosure of vital statistics information to other government agencies.

8. Hold hearings on granting, suspending, revoking or amending ionizing radiation licenses and hold hearings on emergency procedures taken to control radiation.

Proposed Budget, FY 1979: $8,000

State Funds	Federal Funds
$5,000	$3,000

Board of Health and Environmental Sciences

Statutory Authority: Title 69, Chapter 1, RCM 1947

Description: The State Board of Health and Environmental Sciences is a seven-member Board appointed by the Governor to:

1. Advise the Department in public health matters.

2. Hold hearings on:

   a. Denial or cancellation of ambulance service licenses,
   b. Denial or cancellation of hospital or hospital-related facilities licenses,
   c. Disapproval of an application for construction of a health care facility.

3. Control air pollution by:

   a. Adopt rules and issue orders relating to air pollution.
   b. Classify air contaminant sources.
   c. Issue permits for equipment, etc., which might contribute to air pollution.
   d. Establish emission standards.
   e. Hold hearings on enforcement of air pollution standards.
   f. Hold hearings on emergency procedures used to control air pollution.
   g. Grant variances to air pollution standards.
   h. Regulate local air pollution control programs.
   i. Approve federal aid applications for local air pollution control programs.

4. Provide for occupational health by:

   a. Adopt rules and issue orders relating to industrial hygiene.
   b. Issue permits for equipment, etc., which might contribute to air pollution.
   c. Establish limitations on emissions of pollutants to prevent or control occupational diseases.
   d. Hold hearings on enforcement of industrial hygiene standards.
   e. Hold hearings on emergency procedures used to control industrial hygiene standards.
   f. Grant variances to industrial hygiene standards.
   g. Approve federal aid applications for industrial hygiene programs.

5. Control water pollution by:

   a. Hold hearings on denial, modification, suspension or revocation of permits relating to water pollution control.

DEPARTMENT OF INSTITUTIONS

ALCOHOL AND DRUG ABUSE DIVISION

Statutory Authority: 80-2701-80-2725

Description: The Alcohol and Drug Abuse Division is responsible for the general administration and coordination of two bureaus: Reporting and Evaluation and Community and Program Development.

Program Mission: The program mission of the Alcohol and Drug Abuse Division, as stated in the Executive Planning Process report, is "To provide and insure a means whereby the appropriate resources of the State of Montana are focused fully and effectively upon the problems of alcohol and drug dependence and utilized in implementing programs for the prevention, treatment, and control of these problems."

Goals and Objectives: Goals and Objectives provided by the Division in its Executive Planning Process report are as follows:

Planning & Funding

1. To provide a comprehensive and coordinated means of assessing the needs of Montana for substance abuse services and develop and implement activities to meet identified needs.
2. Develop uniform regional planning activities and prepare annual Plan for substance abuse.
3. Coordinate development and implementation of grants, contracts and plans necessary to further objectives of the Plan.
4. Improve coordination and cooperation among State social service agencies in support of substance abuse activities by developing agreements with other agencies for information exchange, planning and funding.
5. Utilize planning data to establish funding priorities and coordinate all Federal and State funding proposals relating to substance abuse and continue to fund 43 treatment programs.

Treatment

1. To continue to upgrade established substance abuse treatment and rehabilitation services in 43 statewide programs, including services in all State correctional facilities.
2. To encourage development of coordinated community, regional and statewide programs.
3. To provide services to approximately 8,000 alcohol abusers and 630 drug abusers in Fiscal Year 1978.
4. To continue administration of DWI Court Schools in cooperation with Department of Justice and Department of Community Affairs.

Prevention

1. To develop and refine substance abuse education available to the general public.
2. Develop substance abuse curricula for the public school systems. (K-12)
3. Develop effective methods of substance abuse prevention for use in public media by doing 2 statewide media campaigns; one for alcohol and one for drugs.
4. Assist communities, agencies, organizations and community programs in development of substance abuse prevention/education activities.

Training & Certification

1. To direct efforts toward insuring the passage of legislation for mandatory counselor certification in Montana and to certify 90% of substance abuse counselors on a voluntary basis in Fiscal Year 1979.
2. To provide 15 educational courses to 160 program staff including management, counselor and evaluation training in Fiscal Year 1979.

Technical Assistance

1. Provide technical assistance to 43 programs to assist programs in meeting State and Federal standards.
2. To develop and implement standardized statewide client record-keeping system.

Reporting & Evaluation

1. To maintain statewide computerized drug and alcohol management information systems.
2. To effectively utilize substance abuse data from other sources by expanding data collection techniques and data processing and analysis capabilities.
3. To provide 2 monthly data output reports for purposes of program planning, management and evaluation at local, regional and state levels.
4. To promote research studies pertaining to the causes and nature of substance abuse.

Approval & Evaluation

1. To conduct annual comprehensive on-site evaluation of 46 alcohol and drug programs, 3-4 days per evaluation, within the state to insure compliance with State and Federal Criteria.
2. To establish and update evaluation guidelines and procedures as set forth by law.
3. To approve 21 newly established alcohol programs in Fiscal Year 1979.

Substance abuse is a problem affecting the health, safety, morals, economy, and general welfare of approximately 8.5 percent of the general Montana population and 70 percent of the Native American population in Montana. In addition, all the indications of alcohol related accidents, and other indicators are showing increases; for example, the per capita consumption rate in Montana is showing an annual increase surpassed only by three other states.

The policy of Montana is to recognize alcohol and drug dependence as a health problem; to recognize alcohol and drug dependence as problems subject to treatment; and, to recognize the sufferer of alcohol, drug dependence, or both, as worthy of treatment and rehabilitation. The Alcohol and Drug Abuse Division's responsibility is to focus on appropriate resources pertaining to the problems of alcohol and drug dependence and to implement programs for control and treatment of these problems.

This is the first year that the Montana State Plan combined alcohol and drug programming processes. Prior to this, a plan for each system was written. Thus, the following program descriptions will present a brief overview of the two bureaus' functions combining alcohol and drug programs, prevention, treatment and rehabilitation. The program descriptions will include budget, evaluation methodology, and staffing patterns.

Community and Program Development Bureau

Description: The Bureau administers and coordinates the treatment and prevention of alcohol and drug abuse through regional and local programs. It provides technical assistance to programs for compliance ensurance of federal and state guidelines and assurance that goals and objectives are consistent with state policies for substance abuse services.

Because of the current hiring freeze, some of the Bureau's services may be in jeopardy due to the Division's inability to fill 23% (four positions) of key, resigned staff positions. Services without assigned staff are: Direct Services,Prevention, and one Training position which includes certification and standards--all of which are required by state and federal law.

The Bureau is responsible for the administration of the following services:

--Direct Services
--Technical Assistance
--Special Services
--Prevention
--Training and Certification

Proposed Administration Budget, FY 1979:

State Funds	Federal Funds
$27,030	$26,846

Staffing: 1.75 FTE's

Direct Services

Description: The responsibility of this section of the Bureau is to administer the Southwest Montana Drug Program (SMDP). The Regional Office is located in Butte with satellite offices in Helena, Bozeman, Anaconda, and Missoula. Direct services are provided to a static capacity group of 293 drug abusers each month. Contracts for residential services are made with "Lighthouse" located at Galen.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$140,749	$386,386

Staffing: 16 FTE's

Technical Assistance

Description: This service provides technical assistance to all Montana alcohol and drug programs. After alcohol and drug programs have been evaluated and deficiencies are noted, technical assistance will be provided to help resolve weaknesses. Also, technical assistance will be provided in any area of specific need upon written request.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$26,915	-0-

Staffing: 1 FTE

Special Services

Description: The three basic components in Special Services are:

1. Employee Assistance Program
2. DWI Court Schools
3. Social Security Income (SSI) Program

Employee Assistance Program

Description: This program is for troubled state employees. The program offers counseling and referral services to state employees primarily in the Helena area; personnel from state agencies not residing in this area are referred to local community programs. Training and education is provided to directors of state agencies about alcohol and drug related problems and advantages of utilizing the program for troubled employees.

Of the 103 referrals made during September, 1977 - February, 1978, 45% were alcohol and/or drug related problems and 24% were emotional related problems. The remaining 31% of the referrals were related to financial, physical, marital, legal and unknown problems.

DWI Court Schools Program

The state office coordinates 22 DWI Court Schools throughout the state. Persons who had their driving licenses revoked must attend court school before provisional licenses are issued. During Fiscal Year 1978, 1,000 Montanans took advantage of this service.

Supplemental Security Income Program

The SSI Program is administered for persons eligible for SSI payments who are alcohol and/or drug abusers. Approximately 35 individuals were enrolled in the pilot project during Fiscal Year 1978.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$10,901	$18,963

Staffing: 2.25 FTE's

Prevention

Description: This service provides information to school children and the general public on issues relating to alcohol dependence and alcoholism, and treatment and rehabilitation services. It also contributes to the improvement for public accessibility into services.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$23,385	$52,385

Staffing: 1 FTE

Training and Certification

Description: The responsibility of the Training and Certification Component of the Bureau is to assist in the development of educational and training programs relative to alcohol and drug dependence, and to implement programs conducive to informing the public, technical and professional groups about alcohol and drug dependence.

A counselor certification system is being developed and will be implemented to ensure quality service to individuals seeking treatment in alcohol and drug programs.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$18,794	$61,069

Staffing: 3 FTE's

Prison Programs

Description: The Division and Bureau, in coordination with the Montana Board of Crime Control, will continue to assist in the support of substance abuse programs located within correctional institutions. Technical assistance will be provided to these programs. Since September, 1977, services have been provided to 73 residents.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$6,446	$49,450

Staffing: 1 FTE

2 contract FTE's

Evaluation and Reporting Bureau

The Bureau is responsible for program monitoring and evaluation management information systems, and the development of the annual state plan for alcohol and drugs.

It has three functional sections:

--Management Information Systems
--Contract, Monitor and Program Evaluation Section
--Planning/Policy Section

Proposed Administration Budget, FY 1979:

State Funds	Federal Funds
$39,909	$19,910

Staffing: 2 FTE's

Management Information Systems

Description: The Management Information Systems section is responsible for the maintenance of statewide computerized drug and alcohol data information. Substance abuse data from other sources will be effectively utilized to expand processing and analysis capabilities. Socio-economic and demographic data is provided regarding Montana's client treatment population for purposes of program planning, management, and evaluation.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$8,226	$27,726

Staffing: 1 FTE

Contract, Monitor and Program Evaluation

Description: The responsibility of this section is to conduct annual comprehensive evaluation of all alcohol and drug programs. The purpose for on-site program reviews is six-fold and is to:

--Improve program performance and client service levels.
--Help ensure statewide compliance with federal and state standards.
--Help achieve efficiency and economy in program operations.
--Assist in determination of program funding levels and approval of contracts.
--Determine areas of needed technical assistance and training.
--Gather data for development of additional standards for program performance.

Criteria for program review is based upon the procedures outlined in the Evaluation Handbook for Alcoholism Treatment, Drug Abuse and Community-Based Mental Health Programs developed by the Touche-Ross Consulting Firm.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$47,356	-0-

Staffing: 1 FTE

Planning/Policy

Description: This section of the Bureau is responsible for the provision of a comprehensive, coordinated means of assessing the human needs of Montana for substance abuse services and to implement activities to meet these needs. It also utilizes the planning data to establish funding priorities and coordinate all federal and state funding proposals relating to substance abuse. The Planning Section is responsible for development of the annual State Plan for Alcohol and Drug Abuse. The section also contracts for publication of the Division bi-monthly newsletter "The Habit".

Proposed Budget, FY 1979:

State Funds	Federal Funds
$23,583	$18,082

Staffing: 1 FTE

Administration

The responsibility of the Division Administrator, Bureau Chiefs, and support staff is to amend existing or initiate new legislation to further the objectives of the annual state plan. Also, they contract with substance abuse providers to ensure delivery of alcohol and drug services. Agreements will be developed with other human service agencies to improve coordination and cooperation and to exchange information, planning, and funding activities.

Proposed Budget, FY 1979:

State Funds	Federal Funds
$40,073	$27,909

Staffing: 6 FTE's

TOTAL PROPOSED BUDGET, FY 1979:

State Funds	Federal Funds
$413,367	$688,726

Total: $1,102,093

Staffing: 39 FTE's

MENTAL HEALTH AND RESIDENTIAL SERVICES DIVISION

Statutory Authority: Chapter 28, R.C.M. 1947; 80-24-2401, R.C.M. 1947; 80-2604, 38-12, R.C.M. 1947; 38-1101-1112, R.C.M. 1947; 80-1701-80-1705, R.C.M. 1947; 82A-801.1, R.C.M. 1947; 80-2310, R.C.M. 1947; 80-1401, R.C.M. 1947.

Program Mission: The Program Mission of the Mental Health and Residential Services Division, as stated in the Executive Planning Process report, is "To rededicate the resources of the State to the productive independence of its now dependent citizens and to promote and maintain the general well-being and mental health of the citizens of the State."

Goals and Objectives: The Goals and Objectives provided by the Division in its Executive Planning Process report are as follows:

a. To provide those mental health services mandated by P.L. 95-83 to all citizens of Montana.
b. To make available appropriate aftercare support services to all former WSSH patients.
c. To sustain the development of improved treatment programs within all institutions.
d. To develop standards of care and treatment for state institutions and CMHC's and to provide biannual program and fiscal audits of the five CMHC's and at least annual evaluations of each institution under the jurisdiction of this Division.
e. To continue appropriate deinstitutionalization of mentally ill and developmentally disabled.
f. To develop appropriate residential treatment alternatives for the Children's Unit at WSSH.
g. To coordinate planning for mental health services based upon statewide needs assessment, and development of a State Mental Health Plan.
h. To continue refinement of systems to facilitate the orderly intra- and interstate transfer of patients.
i. To continue to serve as a clearinghouse for CMHC's and institutions for relevant information concerning current clinical and management information as well as available grant funds.

The following narrative will describe the Division's responsibility relative to mental health programs along three functional lines--planning, operations and evaluation.

Operations Section

Description: The Division of Mental Health and Residential Services is responsible for the administration and supervision of the Montana mental health program including community-based services and institutionally-based services. In this capacity, the Division maintains the authority and responsibility for preparation of the State Mental Health Services Plan as well as the ongoing achievement monitoring of program objectives. Further, the Division is accountable to the Federal Government for correct expenditures of federal funds received for mental health administration and program operations under Section 314(d) of the Public Health Services Act and for expenditures under Section 227 (c) of the Act. Recommendations for allocation of state funds shall be made by the Division based on assessment of mental health needs and performance of CMHC mental health programs.

The Division is responsible for administration and supervision of six institutions. They are: institutionally based services for the mentally ill at Warm Springs State Hospital; institutional services for geriatrics at the Center for the Aged; Services to Montana's veterans at the Veteran's Home; institutional services for the developmentally disabled at Boulder River School and Hospital and Eastmont Training Center; and institutional services for alcoholics and individuals with respiratory diseases at Galen State Hospital.

While administration and supervision of the institutional programs are maintained by the Division, provision of community-based programs for the mentally ill has been contracted for through the regional Community Mental Health Center Boards. Additionally, community mental health services may by provided for directly by other state agencies or indirectly through contract or cooperative agreement with other agencies of government, regional or local, private or public agencies, private professional persons or hospitals, under rules adopted by the Department of Institutions as described in Section 80-2803 (1), R.C.M. 1947.

Major categorical responsibilities of the Division regarding the five regional Community Mental Health Centers and their Thirty (30) satellites are as follows.

Description: The Division facilitates the coordination with five regional mental health boards. The State mental health authority is required to insure prevention of mental illness and elimination of inappropriate institutionalization through statewide supervision of federally required services. Approximately 15-20 percent of the CMHC's budgets is used for consultation and education--those services which help insure prevention of mental illness, eliminate the stigma attached to mental illness, and to educate the public about available resources. The subsequent sections explain how the responsibilities of the Division are categorized.

Planning Section

The State Plan shall be prepared and maintained by the Division. It must be based on an assessment of needs and resources and must have an annual review and plan revisions to be in compliance with P.L. 95-83.

The Division is required to prescribe and provide minimum Standards for Maintenance and Operation of mental health programs and facilities including community mental health centers.

Evaluation Section

Evaluation will include but is not limited to:

1. determination of compliance with standards including enactment of legally enforceable penalties for noncompliance;
2. performance of administrative appeals of enforcement actions;
3. performance of periodic review and revision of standards at least every five years;
4. publication of proposed modifications to existing standards for review and comment at least 30 days prior to adoption; and
5. preparation of reports to the United States National Institute of Mental Health about the nature and degree of program deficiencies. Reports will include status of enforcement action of noncompliance with established standards for projects approved under the Community Mental Health Centers Act.

Special Projects

Two special units within the Mental Health and Residential Services Division are the Community Support Project (CSP) and the Manpower Project. Both programs have been funded with federal monies.

The CSP's mission is to develop a system of community-based services for the severly mentally disordered adult. A model is being developed in the South Central Mental Health Center, will be validated in another center, and replicated throughout Montana.

The Manpower Project's mission is to marshall the resources, harness the commitment and enthusiasm, and improve the capacity of the mental health system in Montana to respond to all the multi-faceted mental health manpower issues. Achievement will improve service delivery and assure a strong and continued coordinated effort toward a comprehensive manpower system with positive linkages between and among all the diverse components of the state mental health system.

In addition, an intensive effort will be made to educate the general public by influencing other than patient populations, prevention of mental illness and promotion of mental health, and highlighting those community mental health problems which are better approached through changing environmental conditions and through clinical methodologies.

Proposed Budget, FY 1979:

	State Funds		Federal Funds	FTE's
Division	$ 153,615		$ -0-	6
Projects				
Community Services	-0-		83,800	7
Manpower	-0-		110,000	7
Mental Health Centers	2,938,347	approx.	1,600,000	266
Institutions				
WSSH	11,885,855	approx.	254,756	680
BRSH	6,906,673		261,327	598
Center for the Aged	1,426,692		-0-	94
Eastmont	450,600		53,170	32
Galen	3,949,486		706	260
Veteran's Home	156,944		624,098	49
				1,999

DEPARTMENT OF LABOR AND INDUSTRY

Safety and Health Bureau

Statutory Authority: Title 41, Chapter 17, Title 50, Chapters 1 & 4, Title 69, Chapters 15 & 16.

Description: The Safety and Health Bureau conducts safety inspections of employers in mining, logging, and public agencies and inspects and approves the operation of boilers. Using the Federal Occupational Safety and Health Standards, the program conducts advisory inspections for other employers, licenses boilers and crane operators, certifies coal mine foremen, and conducts safety and health training programs in first aid, CPR, defensive driving and general safety.

Program Mission: To promote the safety and health of the State's workers.

Goals and Objectives: The current goals and objectives of the Bureau, as stated in its Executive Planning Process report, are:

a. According to State Statute:

   1. To conduct approximately 600 mandatory inspections to insure safe working conditions.

   2. To inspect or review the inspections of approximately 3,000 boilers per year.

   3. To examine and certify coal mine foremen.

   4. To perform approximately 750 mining inspections and training courses per year.

   5. To examine and license all boiler and crane operators.

b. To perform accident investigations on all fatal and serious accidents at the above work places.

c. To conduct approximately 600 advisory inspections during the year.

d. To assist employers in establishing safe working conditions through various training activities and personal contacts.

e. To follow up complaints received relative to unsafe working conditions.

Proposed Budget, FY 1979: $655,946

State Funds	Federal Funds
$631,372	$24,574

Staffing: 28 FTE's

OFFICE OF PUBLIC INSTRUCTION

OFFICE OF PUBLIC INSTRUCTION

Statutory Authority: Title 75, Chapter 57, R.C.M. 1947; 75-5704

The Office of Public Instruction is divided into four departments: Financial Services, Vocational and Occupational Services, Administrative Services and Basic Instructional Services. Within the Basic Instructional Services Department are three units: Basic Skills, Special Education and Federal Programs. Within the Basic Skills Unit is the Consultative Services Division which supervises the activities of the Health and Physical Education Consultant.

Program Mission: The program mission of the Health and Physical Education Consultant, as stated in the Executive Planning Process report is, "To carry out the goals and objectives of the State Superintendent of Public Instruction."

Goals and Objectives: The goals and objectives provided by the EPP report are as follows:

a. To provide educational experiences essential for individual freedom and growth.
b. To encourage the continuous preservation and development of a free society.
c. To develop insofar as possible the greatest potential in its citizens through access to educational opportunities.
d. To encourage the preservation of cultural and environmental heritage.
e. To provide comprehensive and responsible educational leadership.
f. To provide services to the various components of education.
g. To promote educational opportunities for Montana citizens.
h. To encourage lay and professional persons and associations to contribute to the educational decision making process.
i. To assist and cooperate with the public, governmental agencies, school districts, educational organizations and elected officials in developing and maintaining quality education.
j. To be responsive to the changing educational needs as perceived by this office and to suggestions and requests as expressed by the citizens of this state.
k. To provide program, personnel and financial accountability to the citizens of this state.
l. To continually inform the citizens of this state of the status of educational achievements, needs and considerations.
m. To pursue cost saving methods while maintaining effective and efficient delivery of educational services.
n. To coordinate programs, activities and personnel to achieve an equitable balance among all educational endeavors.
o. To plan a fiscal and activity program for present and future educational needs and direction.
p. To uphold and obey all federal and state laws and initiate and/or advocate modification when necessary.

Basic Instructional Services Program (health education)

Description: The office function is to assist local school districts, Office of Public Instruction programs, state agencies and units of higher education in diagnosing, prescribing and promoting health and physical education which will develop the full potential of each leader. General responsibilities are to provide consultative and technical services that aid in the development, formation and implementation of creative health and physical education programs; develop resource information to serve the needs of Montana educational personnel; to administer the programs of health and physical education and to evaluate the programs of health and physical education in schools.

Duties that are specific to health education include:

1. Assist school personnel in developing and implementing goals and objectives;
2. Participate in Northwest Regional Accreditation Evaluations and make recommendations in the area of health education;
3. Conduct on-site evaluations of school health education programs for the purpose of diagnosing, prescribing and recommending to school districts, boards of education, superintendents and administrators for needed improvements and changes to improve the quality of education in that particular district;
4. Provide inservice training in the area of health to bring updated information and new ideas to teachers;
5. Provide assistance in planning, organizing and conducting workshops and conferences on health education topics;
6. Provide consultative services in curriculum design and implementation in health;
7. Provide resource materials to schools;
8. Work with related health agencies and organizations to provide more and better services to schools.

Proposed Budget: $7,000

Staffing: 1½ FTE's

DEPARTMENT OF SOCIAL
AND
REHABILITATION SERVICES

COMMUNITY SERVICES DIVISION

Statutory Authority: Sections 10-501, 507, 509, 510, 520, 521, 522, 524, 611, 703, 802-807; 71-1516, 1914-1919, 2303, 2307; 82A-102, 4203; 71-201-270; 82A-1901-1906; 61-302-326; 10-1300-1322, 1400-1409, 1207; ARM-46-2.6(2)-5640; 46-2.6(2)-5650; 46-2.6(2)-5660.

The Older Americans Act of 1965 as amended; Title III, Title IV-A, Title V and Title VII: and Title XX of the Social Security Act.

82A-1901 R.C.M. 1947; 71-701 to 714; MAC 56470 Chapter 10.

Description: This Division is responsible for the overall administration of three bureaus: Aging Services, Social Services, and Child and Youth Development. These bureaus, in turn, administer the direct services program.

Goals and Objectives: The Goals and Objectives will be shown below each bureau description.

Aging Services Bureau

Statutory Authority: The Older Americans Act of 1965 as amended Title III, Title IV-A, Title V, Title VII and Title XX of the Social Security Act.

Description: The purpose of the Bureau is to promote independent living and, thus, the dignity of Montana's senior citizens.

The major programs of the Bureau are funded under the Older Americans Act of 1965. Under Title III of the Act, the Bureau is responsible for distributing block grants to Montana's seven Area Councils on Aging, and for approving annual plans submitted by the area councils. Title III funds are distributed to the area councils in proportion to the number of persons over 55 years of age who reside in each of the planning and service areas. The area councils use these funds to support local senior citizen organizations that provide direct services such as transportation, senior centers, outreach, information and referral, and health services.

Title III programs and services are available to all Montanans 55 years and older, and Title VII programs and services are available to persons 60 years and older. Both Title III and Title VII programs and services are available to all American Indians 45 years and older who desire or are in need of these services.

Program Mission: To maximize the independent living situations of Montana's Senior Citizen population.

Goals and Objectives: Goals and Objectives provided by the Division in its Executive Planning Process report are as follows:

(1) To standardize contracts used by Title VII projects by September 30, 1979.
(2) To reduce the home-delivered meals serviced by Title VII to a statewide percentage of 25% by September 30, 1979.
(3) The Aging Services Bureau, through the Aging Services Network, will conduct a survey of all senior citizens centers statewide by September 30, 1979.
(4) Survey recipients of all Older Americans Act service projects to determine percentage of participation by low-income and minority senior citizens by September 30, 1979.
(5) Involve the Aging Services Network of Montana in an accelerated program to increase the effectiveness and coordination of all Human Service Programs at community, county and PSA levels by September 30, 1979.
(6) To improve the availability of in-home services to residents of senior and low-income housing projects by September 30, 1979.

(7) To implement a formal agreement with the Montana Nursing Home Association by September 30, 1979.
(8) Co-sponsor a contest within the public school system designed to counteract the early development of negative stereotypes about older persons by September 30, 1979.
(9) Expand monthly Information and Referral report to include consumer watch information by May 31, 1979.
(10) Increase the in-house management capabilities of Title VII projects by September 30, 1979.

Proposed Administration Budget, FY 1979:

State Funds	Federal Funds
-0-	$200,000

Staffing: 15 FTE's

1. Title III: Grants for State and Community Programs on Aging.

Statutory Authority: Title III of the Older Americans Act of 1965 as amended.

Description: To establish and maintain a comprehensive coordinated system designed to facilitate accessibility and utilization of social services and to initiate and develop and make the most effective use of social services in meeting the needs of older persons in the community.

Proposed Budget, FY 1979:
(Includes Program and Administration of 7 area agencies)

State Funds	Federal Funds
-0-	$757,350

2. Title IV-A: Training Grant

Description: Training will be provided to improve the quality of services for the aged and to help reduce critical shortages of adequately trained personnel for programs in the field of aging by providing direct training to personnel of the Aging Services Bureau, Area Agency on Aging, and those individuals that work directly with aging programs at the local level.

Proposed Budget, FY 1979:

	Federal Funds
Contracted Training	$20,000
Direct Training	10,000
Total	$30,000

3. Title V: Multipurpose Senior Citizens Center Grants

Description: To administer funding for Senior Citizens' Centers.

Proposed Budget, FY 1979:
(Seven area agencies)

State Funds	Federal Funds
-0-	$200,000

4. Title VII: Nutrition Program for the Elderly

Description: To assist in meeting the nutritional needs of America's citizens that are sixty years of age and older. The program provides permanent nutrition projects and the supportive services to insure maximum effectiveness of the meals provided.

Proposed Budget, FY 1979:

Title VII Project	Federal Funds
Smelter City Senior Citizen's Title VII Nutrition Project Anaconda, Mt. 59711	$ 86,991
Yellowstone County Nutrition Project Billings, Mt. 59101	218,770
Butte Senior Citizen's Diners Club Butte, Mt. 59701	99,815
Title VII Nutrition Project Glendive, Mt. 59330	164,364
Cascade County Title VII Nutrition Project Great Falls, Mt. 59401	123,475
Hill County Council on Aging Senior Nutrition Project Havre, Mt. 59501	187,625
Tri-County Senior Citizens Helena, Mt. 59601	140,397
Flathead Title VII Nutrition Project Kalispell, Mt. 59901	216,063
Total	$1,237,500

5. Nursing Home Ombudsperson Project

Description: This is a statewide network, in cooperation with existing information and referral technicians,who will be in contact with all nursing homes and will provide grievance procedures to all staff and clients of these establishments.

Proposed Budget, FY 1979:

State Funds	Federal Funds
-0-	$18,000

6. Administration on Aging, Legal Services Grant

Description: Provision of legal services will be made to the senior citizens of Montana. The entire amount is to be contracted with Montana Legal Services Association for the services. The grant will also be used for the following:

a. Determine high incidence legal problems that occur among senior citizens.
b. Determine which high incidence areas should receive special attention and develop methods of approach to ease the handling of such problems.
c. Disseminate developed materials to all appropriate and/or concerned individuals.
d. Assist the Aging Services network with the development and expansion of paralegal and legal services to the seniors of Montana.

Proposed Budget, FY 1979:

State Funds	Federal Funds
-0-	$26,800

7. Title XX: Services

Description: Six of the seven Area Agencies will provide Nutrition, Homemaker/Chore, Transportation, and Minor Home Repair Services to senior citizens who qualify under the eligibility guidelines for Title XX. A brief description of each service will follow.

Nutrition Services

Description: Nutrition services include the provision of nourishing congregate meals in a community setting and the preparation and delivery of nourishing meals to the homes of senior citizens who are unable to obtain or prepare them. The program will provide less than three meals per day and is not designed to meet full nutritional needs of the individual.

Proposed Budget, FY 1979:

State Funds	Federal Funds	Local Funds
-0-	$258,983	$86,328

Homemaker-Chore

Description: Homemaker-chore services include home management, home maintenance and limited personal care services to be provided by privately contracted and supervised homemakers to senior citizens in order to maintain independent living situations in their community and to prevent premature institutionalization.

Proposed Budget, FY 1979:

State Funds	Federal Funds	Local Funds
-0-	$123,466	$41,155

Transportation for Senior Citizens Program

Description: Transportation services for senior citizens will include reduced fares on available public transportation; volunteer drivers reimbursed for mileage and scheduled and unscheduled bus and van and limousine services. The program will provide transportation to medical facilities and services, shopping centers, social events, senior centers and other community facilities and resources and will prevent institutionalization and maintain independent living situations.

Proposed Budget, FY 1979:

State Funds	Federal Funds	Local Funds
-0-	$85,313	$28,438

Minor Housing Repair Program

Description: Housing repair services will be provided senior citizens who are home owners. The program includes correction of structural flaws such as doors, steps, handrails, roofs, insulation, storm windows and other weatherization projects; the repair of furnaces and water systems.

Proposed Budget, FY 1979:

State Funds	Federal Funds	Local Funds
-0-	$55,238	$18,412

Aging Services Evaluation:

1. Evaluation of the effectiveness of the contractual arrangements to form Title VII projects.

2. Evaluation of the progress of projects in reducing the percentage of home delivered meals.

3. Evaluation of the effectiveness of provision of in-home services to residents in housing projects.

4. Evaluation of the agreement with the Montana Nursing Home Association and evaluation of the deinstitutionalization process.

5. Evaluation of the information and referral network.

6. Evaluation of the management of the Major Initiative Tracking System.

Child and Youth Development Bureau

Statutory Authority: 82A-1901 R.C.M. 1947; 71-701 to 714; MAC 56470 Chapter 10.

Description: The purpose of this Bureau is to prevent, reduce or correct problems of the youth of Montana in order to provide a better quality of life for the youth and citizens of the State.

Program Mission: The program mission, as cited in the Executive Planning Program is, "To prevent or reduce problems of Montana youth who are defined in Montana Youth Court Act as Delinquent, Youth in Need of Supervision and Youth in Need of Care, or those youth who are in danger of becoming the above."

Goals and Objectives: Goals and Objectives provided by the Division in its Executive Planning Process report are as follows:

a. To reduce and prevent an increase of "Youth in Need of Care" on child welfare caseloads and to reduce and prevent an increase of "Youth in Need of Supervision" on child welfare and probation caseloads.

   (1) To teach behavior management and social learning skills to 140 families (involving 280 children aged 5-12) in Lewis and Clark County in order to reduce potential abuse, neglect and exploitation in FY 1978-79 and to teach behavior management and social learning skills to 200 families (involving 400 children aged 5-17) in Lewis and Clark County in order to reduce potential abuse, neglect, and exploitation in FY 80-81.
   (2) To train 10 child welfare case workers in a program of behavior management and social learning skills, for use with protective service families in order to reduce potential abuse, neglect and exploitation in FY 78-79 and to train 50 child welfare case workers in a program of behavior management and social learning skills, for use with protective service families in order to reduce potential abuse, neglect and exploitation in FY 80-81.
   (3) To improve the home and school behavior and school performance of 850 youth primarily from single parent families through providing a one-to-one adult relationship in FY 78-79 and to improve the home and school performance of 1,200 youth primarily from single parent families through providing a one-to-one adult relationship in FY 80-81.
   (4) For 45 youth served at Achievement Place to reunite 40 percent with their natural families and to place 35 percent in a suitable alternative placement such as a group or foster home or independent living when return to natural family is not feasible in FY 78-79 and for FY 80-81 to serve 65 youth with 60 percent returning home and 35 percent in suitable alternative placements.

(5) For 500 youth served by Runaway projects to successfully reunite 50 percent with their natural families and to place 40 percent in a suitable alternative living situation in FY 78-79. For 600 youth served by Runaway Projects in FY80-81 to reunite 60 percent with natural families and place 30 percent in a suitable alternative.

(6) To develop two shelter care programs in FY 78-79 and four in FY 80-81 serving approximately 250 youth (FY 78-79) and 450 youth (FY 80-81) referred from Social Services and Probation. The overall shelter care program is designed to achieve a 75 percent of 1,700 youth reduction in status offenders detained in secure lock-up facilities.

(7) To design and implement three comprehensive intake programs designed to divert 400 status offender youth (FY 78) and 1,000 status offender youth (FY 79) from the Juvenile Justice System in FY 78-79 and to design and implement seven comprehensive intake programs designed to divert 600 status offender youth (FY 80) and 1,400 status offender youth (FY 81) from the Juvenile Justice System in FY 80-81.

(8) To increase the supportive services available for families experiencing problems by 10 percent in 1978-79 and by 15 percent in 1980-81 through development of programs, i.e.,: Parents Anonymous, Lay Therapists, Comprehensive Emergency Services, Parent Aides.

(9) To increase the services available for children experiencing problems by 10 percent in 1978-79 and by 15 percent in 1980-81 through provision of services, i.e.: foster home/crisis day care recruitment and training, coordination of service providers (child teams).

(10) To increase the awareness level of the public to the needs of children and to the services available for children by 10 percent in 1978-79 and by 12 percent in 1980-81 through public awareness programs, i.e.: regular newspaper articles, presentations to service clubs and community organizations, training of WIN parents.

(11) To increase the ability of service providers and funding agencies/organization to address the needs of children by increasing their available data on children by 20 percent in 1978-79 in seven communities and by 20 percent in 1980-81 in nine communities by research and presenting data to providers/funders, evaluating funding requests.

(12) To increase the number of programs which divert children and youth from undesirable actions by 30 percent in 1978-79 and by 40 percent in 1980-81 through development of programs, i.e.: after school care, summer enrichment.

(13) To train 400 foster parents in 1978-79-80-81, through providing 36 workshops in 1978-79 and 40 workshops in 1980-81 sponsored by the Montana State Foster Parents Organization.

1. Youth Development Program

Description: The Bureau's primary Youth Development Program is directed toward helping youths who have committed anti-social acts; especially runaways, status offenders, low-income youths, and those in need of protection. The Bureau uses funds received under Title XX and the Runaway Youth Act to contract with local non-profit organizations to provide services such as shelter, room and board, group care, volunteer services, runaway networkings, counseling and recreational activities. While Bureau staff members do not provide any direct services to youth, they are continuously involved in community organization, planning technical assistance, and working with other agencies, organizations, and local officials to promote a more effective and systematic approach to solving the problems of youth people.

2. Child Development Service

Statutory Authority: Montana Administrative Code, Volume 8, Part 1, Subchapter 10, Title 46-2.6 (10) 56520-56640.

Description: The Child Development activity package is designed to provide support services to child care and other children's programs. Local non-profit child care corporations (4-C's) are contracted with to provide planning and program development for children's services, involving coordination of local agencies and programs. The community's child-serving system is the primary area of emphasis. Some programs developed include: Parents Anonymous, Comprehensive Emergency Services, After School Care, parent aide and lay therapist programs to reduce problems of child abuse and neglect. Coordination of community services has been provided by: developing coalitions of providers for planning, 4-C Boards equally composed of public and private service providers and consumers, needs assessments and comprehensive planning, providing input to community planners on social services, ad hoc and standing committees and task forces. 4-C's also provide recruitment and orientation for day care operators, training for child care providers and educators on early detection of handicaps and possible abuse or neglect and parent and child development training.

Proposed Budget, FY 1979:

	State Funds	Federal Funds	Third Party
	$57,686	$239,552	$30,020

Total $327,258

3. Youth Development Service

Statutory Authority: Montana Administrative Code, Volume 8 Part II, Subchapter 10, Title 46-2.6 (10) 56520-56640.

Description: The Youth Development activity package is designed to prevent or reduce problems of Montana youth who are defined in the Montana Youth Court Act as Delinquent, Youth in Need of Supervision, and Youth in Need of Care, or those youth who are in danger of becoming the above. The activity package is aimed at improving the delivery of Montana governmental and private services for problem youth and at coordination of Montana's youth services. This includes Federal, State and local public and private resources. Youth Development provides services to communities and local agencies and does not work directly with individual clients. Major functions are Planning and Program Development. The community's youth service system is the primary area of emphasis. Direct services are provided through "Purchase of Service" contracts with local non-profit corporations and units of local government. These contracts include: group home treatment programs, Big Brothers/Big Sisters and Runaway Youth Programs. Services offer support to the youth and concentrate on serving the complete family unit. This activity package relies heavily upon a signed Joint Cooperative Agreement with the Montana Board of Control (MBCC) wherein the Department of SRS and MBCC agree to share staff under the guidance and program direction of the Montana Youth Justice Council.

Proposed Budget, FY 1979:

	State Funds	Federal Funds	Third Party
	$64,889	$173,220	$1,481

Total $239,590

4. Social Learning Program

Statutory Authority: Montana Administrative Code, Volume 8 Part II, Subchapter 10, Title 46-2.6 (10) 56320-56640.

Description: The Social Learning activity package is a community-based treatment program using a behavior management/social learning treatment modality. It is provided as an alternative to institutions for youth and to treat families and youth in the least restrictive environment. The program includes four group homes and a non-residential Family Treatment Center. The homes and the center are geared toward teaching youth socially acceptable behavior and teaching the youth's parents some parenting skills. Youth and families are usually involved with the program from six to nine months.

The increasing number of new private and public agencies serving children and youth in need will influence the existing operation of services to Youth in Need of Care. County Welfare officers will be able to provide better services through referral and follow-up. Continued deinstitutionalizing of status offenders (curfew violation, runaway, incorrigible, etc.) could have an effect upon this activity.

The increasing number of youth who are being referred to community-based treatment homes instead of detention facilities and the availability of treatment to children and families at home indicate past effectiveness. Promote the availability of more alternative types of care facilities for young people in need with an emphasis upon services being provided in the least restrictive environment possible.

Proposed Budget, FY 1979:

	State Funds	Federal Funds
	$63,500	$190,500
Total	$254,000	

5. Volunteer Program

Statutory Authority: Montana Administrative Code, Volume 8, Part II, Subchapter 10, Title 46-2.6 (10) 56520-56640.

Description: This activity purchases support to volunteers to children and youth. The volunteer is matched with the youngster and provides companionship and, in some cases, a role model for the child. It is aimed at children from single parent families who could benefit from the adult volunteer services. These services help divert the child or youth from getting into trouble and are aimed at improving his or her performance at home and in school. Most requests for services come from either the family or the school.

Proposed Budget, FY 1979:

	State Funds	Federal Funds	Third Party
	-0-	$123,750	$41,250

Total $165,000

6. Runaway Youth Program

Statutory Authority: Montana Administrative Code, Volume 8 Part II, Subchapter 10, Title 46-2.6 (10) 56520-56640.

Description: The Runaway Youth activity package focuses on meeting the immediate needs of youth in crisis. It provides the youth immediate guidance and assistance during the crisis situation, and reunites them with their families when possible. Contracts are written with local corporations in high risk areas to provide emergency shelter, food, counseling, information and referral, legal and medical assistance, transportation and case follow-up. The program is designed to assist the young person through a traumatic period of time by providing emergency care outside the juvenile justice system, thereby reducing the case load of the juvenile justice system and preventing the attachment of a stigma to the youth in crisis.

Proposed Budget, FY 1979:

	State Funds	Federal Funds
	$8,750	$56,250

Total $65,000

7. Foster Parents Program

Statutory Authority: Montana Administrative Code, Volume 8, Part II, Subchapter 10, Title 46-2.6 (10) 56520-56640.

Description: The Montana State Foster Parents Organization has contracted with the Bureau for the training of licensed foster parents. All participation in organizational activities is volunteered on the foster parent's part. The organization has brought together over 400 foster parents each year. Training in parenting skills is provided with input and participation from foster parents. Through these training sessions foster parents are able to benefit from sharing experiences and problems. This is a valuable asset in the retention and satisfaction of good foster homes. Foster parents accept and promote programs in cooperation with social workers through the awareness and training provided through the activity. MSFPO provides assistance and organizational skills, too, to local foster parent associations.

Proposed Budget, FY 1979:

	State Funds	Federal Funds
	$8,322	$29,678

Total $38,000

Staffing: 17.25 FTE's

Evaluation:

1. Increased awareness by providers of licensing laws and standards expanded availability of 24-hour a day care services on an emergency basis, and increased coordination of community services to families with the potential for child abuse and neglect.

2. Direct reduction in the number of status offenders (truants, incorrigibles, and runaways) held in jail, reduction in the number of status offenders in institutions, establishment of restitution programs for vandalism and burglary, and establishing cooperative working agreements between C&YCB, Board of Crime Control, Department of Institutions, and OPI.

3. Increased the number of youth who are being referred to community-based treatment homes, and increase the availability of treatment to children and families at home.

4. Developing an assessment form for Big Brothers and Big Sisters Programs.

5. Provide emergency treatment to prevent the involvement of runaways with the criminal justice system.

Social Services Bureau

Statutory Authority: Sections 10-501, 507, 509, 510, 520, 521, 522, 524, 611, 703, 802-807; 71-1516, 1914-1919, 2303, 2307; 82A-102, 4203; 71-201-270; 82A-1901-1906; 61-302-326; 10-1300-1322, 1400-1409, 1207; ARM - 46-2.6(2), 5640; 46-2.6(2), 5650; 46-2.6(2) 5660.

Description: The purpose of the Social Services Bureau is to promote self-sufficiency, protect adults and children, assist individuals in self-support, prevent inappropriate institutionalization and place persons into institutions when appropriate. The Bureau employs five persons at the bureau level, and has supervisory authority over about 250 social workers, homemakers, and social service aides located in district and county offices statewide.

Program Mission: To maintain and strengthen families through comprehensive services to children and families and to provide services to adults to assist their living in the least restrictive setting.

Goals and Objectives: Goals and Objectives provided by the Division in its Executive Planning Process report are as follows:

a. To maintain children in their own homes or in the least restrictive environment.

   (1) To continue to develop, provide and maintain quality child-centered, family-focused protective services to 7,500 children who are abused, neglected and/or exploited and to seek referrals and provide investigation of all children alleged to be neglected with an estimated increase to 8,250 children in FY 1980-81.
   (2) To provide homemaker services to 250 families in order to protect children from possible abuse or neglect in FY 78-79 and to increase homemaker services to 350 families in FY 80-81.
   (3) To continue to develop a system to insure quality day care to 1,500 children so that parents may engage in or seek employment or training and to 208 children in danger of neglect, exploitation or abuse.
   (4) To develop and implement a sliding scale day care payment system for children whose parents have incomes within 58% of the state medium income and to increase the rates paid to day care providers in FY 80-81.
   (5) To provide case management services to 100 developmentally disabled children in FY 78-79 and to increase the number of case management services to 250 children in FY 80-81.
   (6) To continue to provide 4,140 children with early medical screening and health related services.

b. To provide alternative temporary placement for children when necessary and permanent placement when appropriate.

(1) To continue to provide the best possible foster care placement to 1,512 children and families in need of substitute care by developing criteria for placement, developing the service plan and using appropriate resources.
(2) To continue to provide community-based services for 100 children placed in institutional settings.
(3) To provide the best possible placement for each child and family in need of substitute care and reduce the foster care caseload by 100 children in FY 80-81.
(4) To continue to assure that 150 children free for adoption can be placed with an appropriate family in Montana and to provide for the evaluation of 816 non-agency placements as required by law.
(5) To provide subsidized adoption for 40 children with special needs and who would otherwise not be adopted; 20 children with a monetary subsidy including sibling groups, and 20 children in need of a medical subsidy in FY 78-79 and to provide for subsidized adoption of an additional 40 children with special needs who would otherwise not be adopted; 20 with a monetary subsidy and 20 with a medical subsidy, for a total of 80 children in FY 80-81.

c. To provide social services to adults in need which will assist them to remain in their own homes or when necessary to plan and provide for alternate living arrangements. (Governor's Policy Initiatives, p. 27, last paragraph; p. 28, paragraphs 2 and 4; p. 29, paragraphs 1 and 2 under Aging Services.)

(1) To continue to provide protection to 2,280 adults unable to protect their own interest by identifying, investigating and providing counseling, arranging alternative living arrangements and other services to prevent abuse, neglect or exploitation.
(2) To provide homemaker services to 703 adults to assist them to remain in their own homes in FY 78-79 and to serve an additional 200 adults in FY 80-81.
(3) To continue to provide foster care and other services to 714 adults, to recruit and evaluate homes for 300 individuals in order to prevent institutionalization.
(4) To provide case management for 1,250 adults who are developmentally disabled in FY 78-79 and to provide case management through Individual Habilitation Planning to 1,350 adults in FY 80-81.
(5) To continue to provide health related services to 1,692 adults in order to prevent dependency and institutionalization.
(6) To serve 1,117 residents in long-term care facilities, including counseling for entrance into and discharge planning from these facilities in FY 78-79 and to serve 3,589 residents, including developing and implementing policies related to entrance and discharge planning in FY 80-81.

d. To provide community-based services to enhance self-sufficiency.

(1) To continue to provide information and referral services to 8,865 persons upon request, and to provide follow-up in order to assure appropriate provision of services.
(2) To continue to enable 1,330 low-income persons to obtain legal services for problems which impede the achievement or maintenance of economic self-support and self-sufficiency and the prevention or remediation of neglect, abuse or exploitation.
(3) To continue to provide comprehensive family planning services to 3,000 persons in order to enable them to voluntarily limit the size of their families.

e. To provide WIN services in order to reduce dependency. (Governor's Policy Initiatives, p. 29, paragraph 2.)

(1) To continue to provide social services in single administrative unit teams in cooperation with staff from Employment Services Department of Labor and Industry to 1,500 individuals in order to facilitate participation in employment or training.

1. Adoptive Program

Description: Adoption services include provision of social services as a protective service to enable appropriate children to be placed in adoptive homes and to provide for the evaluation of non-agency adoptive placements as required by law. Services of this program include initial evaluation, direct evaluation, post and pre-counseling, placement of child, follow-up services, follow-up evaluation, and recruitment of and/or approval of adoptive homes.

2. Day Care for Children Program

Description: This program provides organized services for the direct supplemental care of children away from the child's home, for a portion of a 24-hour day. Monitoring, pre-placement visits and periodic evaluations are provided as they relate to the specific child to meet his/her needs. Meals are provided but less than three meals per day.

3. Family Planning Program

Description: Family planning services are comprehensive services directed primarily at preventive health measures and counseling that are aimed at enabling families to voluntarily limit their family size. Family planning services include counseling, patient education, blood tests for anemia, rubella, and syphilis; immunization for rubella, blood pressure, height and weight, physical examinations, pap smear, gonorrhea culture, gonorrhea treatment, pregnancy tests, urine analysis for sugar and protein, breast self-examination instruction, diagnosis and treatment of vaginal infection, I.U.D. insertion, dispensation of contraceptive supplies, inter-agency referral for other problems, and day care and transportation services when needed. AFDC clients are served through Title XIX.

4. Foster Care for Adults Program

Description: This program promotes and secures foster care in foster and group homes. These services are available to persons age 18 and over who are unable to remain in independent living situations. Also included are persons in institutions who need community placement by providing counseling services to adults upon the initiation or termination of placement. An evaluation assessment of client needs is provided by a process of counseling, recruiting, evaluating and licensing adult foster homes and community homes for the developmentally disabled.

5. Foster Care for Children Program

Description: To provide foster care services for children under age 18 outside their homes for more than 24 hours when their own homes are not available to them. Activities of the program include:

1. Preparatory services to children and families upon initiation or termination of foster care placement.
2. Recruitment, evaluation, and licensing of foster group homes and institutions as well as a training process for new families coming into the foster parents program.
3. Foster and group home placement services.
4. Counseling services to child, natural and foster families during the individual child's placement.
5. Counseling and supportive services to restore family unity.
6. Reuniting families.
7. Counseling to secure future job training and employment.
8. Counseling for adoptive placement.

6. Health Related Services for Adults Program

Description: This program provides services to assist persons over age 18 to attain and retain an optimum condition of health by assisting in the utilization of necessary medical treatment services. Services of this program include helping people to understand their illnesses, arranging for transportation to and from medical services, working with individuals and family members to assure that medical recommendations are followed, and working with medical practitioners to assure that appropriate services are provided.

7. Health Related Services for Children Program

Description: Health related services for children are those services for children under age 18 that are related to the Early Periodic Screening, Diagnosis, and Treatment (EPSDT) program. The EPSDT program is a medical service program for children of AFDC families that is funded through Title XIX. The health related services include informing parents of the program, assisting parents to carry out recommended medical findings through counseling, providing child care and arranging transportation for the initial examination and subsequent follow-up visits.

8. Homemaker Services Program

Description: Homemaker services include assistance and demonstration in meal planning, preparation and food buying, assistance with doctor and dental appointments, shopping for household items and clothing, clothing repair, light household chores and child management.

9. Information, Referral, and Follow-Up Program

Description: This service provides information to any person on request regarding Title XX and related programs. Where appropriate, referrals are provided to Title XX and other program resources, and follow-up is provided to assure the provision of services requested.

10. Institutional Placement and Counseling Program

Description: This program arranges appropriate institutional placement for individuals to nursing homes, boarding homes and personal care homes. Activities include pre-admission screening, monitoring and counseling after placement. In addition to the placement function, this program develops community placement and community care alternatives for persons presently residing in nursing homes. All eligible medical components will be paid for with Title XIX funds.

11. Legal Services Program

Description: Legal Services include legal counseling, advice, representation and appeal in civil matters, exclusive of criminal, fee generating, probate, and bankruptcy cases.

12. Protective Services for Adults Program

Description: Protective Services are services directed at the goal of preventing or remedying neglect, abuse, or exploitation of adults over age 18 who are unable to protect their own interest. Activities of this service include identification, investigation and diagnosis, provision of counseling, arrangement of appropriate alternative living arrangements, assistance in locating medical and legal care, including guardianship of person, arrangement of protective placement, and the provision of advocacy.

13. Protective Services for Children Program

Description: This program provides services to those under 18 years of age who are harmed or threatened with harm through nonaccidental physical or mental injury, sexual abuse, or negligent treatment or maltreatment. Activities of this program include identification and diagnosis, investigation, determination that individual is vulnerable or at risk of neglect, abuse or exploitation, counseling and therapy for parental figures and children, securing custody, identifying need for foster care or adoption, arranging for the provision of services outside the child's own home, and training parents or obtaining training courses for parents.

14. Services to Unmarried Parents Program

Description: This program provides counseling to one or both parents as a protective service which may include assistance for the following: placement in prenatal facilities, locating medical services, follow-up services to parent(s) after birth of child, follow-up on adoptive placements or assisting in the development of other needed resources.

Proposed Total Budget, FY 1979:

State Funds	Federal Funds	Local Funds
$1,302,078	$6,180,735	$1,009,422

Staffing: Total 391.81 FTE's

Evaluation:

At the present time, the Department of Social and Rehabilitation Services has two computerized data systems which are used by program staff to monitor and evaluate Title XX programs; these are the Montana Service System (MSS) and the Microdata Sampling System (MDSS). The MSS system is a reporting system that keeps records and information on all Title XX clients and is used for monitoring purposes. The MDSS system is the evaluation component to the MSS system. The MDSS system samples individuals on the MSS system and evaluates their progress through the social services system; this process is known as the "walk through". The "walk through" charts the progress of the client throughout the social service system. That is, clients are tracked through one or more of the five national Title XX goals in order to determine progress in achieving the goals. The Title XX goals are related to the achievement of obtaining self-sufficiency, self-supportiveness, appropriate institutional or deinstitutional placement, and protection from abuse. The MDSS system is used to show whether the Title XX service is having an effect, either beneficial or detrimental, upon the client. In this way, the MDSS system is used to indicate the quality of the services by guaging the service's influence upon the clients.

In addition to using the MSS and MDSS systems for the purposes of the evaluation, Title XX program managers evaluate each of their programs prior to the beginning of each fiscal year or contracting period. At this time the program manager determines whether or not a sufficient number of clients are being served, whether funds are being spent properly and effectively given the client load, the quality of the staff, and the quality of the service delivered.

DEVELOPMENTAL DISABILITIES DIVISION

Statutory Authority: Title 71, Chapters 2402, 2403, 2404 and 2414 R.C.M. 1947

Description: The Developmental Disabilities Division is responsible for the overall administration and coordination of two bureaus: Habilitation and Evaluation and Management and Planning. A primary focus by the Division is to provide statewide programs for the high risk population afflicted by mental retardation, cerebral palsy, epilepsy, autism, or any other neurological handicapping condition closely related to mental retardation. Many clients enrolled in community programs have been transferred to a community facility from Boulder River School and Hospital. Establishment of community facilities have provided some combination of living arrangements, livelihood, and continuing care or support to the clients. All programs take into account the fact that each individual has the right to autonomy and self-determination insofar as he/she has the capacity to exercise them.

Program Mission: As stated in the Executive Planning Process report, the Program Mission of the Developmental Disabilities Division is "To initiate a preventive developmental disabilities program which shall include, but not be limited to, the implementation of developmental disabilities care, treatment, prevention, and research as can best be accomplished by community centered services."

Goals and Objectives: Goals and Objectives provided by the Division in its Executive Planning Process report are as follows:

a. To continue the deinstitutionalization program of services to Developmentally Disabled persons and their families; including prevention of inappropriate institutional placement, through provision of a continium appropriate community-based service. (Community-Based Care & Treatment)

   (1) To provide services to 1251-1320 developmentally disabled adults including the following: Residential Services 468-472, Transportation Services 886-897, Vocational Services 856-865, Treatment and Follow-Along 25-30 and Evaluation and Diagnosis 20-25.
   (2) To provide services to 250-264 children and their families including the following: Residential Services, Family Training, Pre-School or Day Care, Treatment and Follow-Along, and Evaluation and Diagnosis.
   (3) To continue through the remainder of the present biennium and through the 1980-81 biennium providing the previously mentioned community services as program vacancies occur to DD individuals inappropriately served in institutions, long term care facilities, and existing community services.

(4) Provide at least five training sessions in each region to the significant others in the lives of the developmentally disabled, i.e., parents, family members, and consumers, that gives them an overview of the roles and responsibilities of the various agencies that comprise the DD Service Network and the laws and rights of the developmentally disabled clients and their parents. This will enable the client and/or parent to function efficiently and more independently in assessing the programs of the services network.

b. During the remainder of the 1978-79 biennium and through the 1980-81 biennium insure the programatic integrity and the highest degree of quality in all services provided the Developmentally Disabled in Montana. (Community-Based Care & Treatment)

(1) To provide training to 600 Title XX direct service staff to enable them to apply these skills and their knowledge in increasing the independent functioning level of persons with developmental disabilities by their active participation in the planning and implementation of Individual Habilitation Plans (IHP), design and implementation of Individual Program Plans (IPP) and documentation of client progress for each IPP.
(2) Provide, as requested, training to the 43 staff members of the DDD in IHP and IPP preparation and in other job related areas.
(3) On a request basis, provide training to 400 Title XX non-profit board members and regional council members in the following DD program areas: standards and regulations, contracting procedures, and legal and ethical responsibilities.

c. To develop additional community services for presently inappropriately served in nursing homes and institutions and unserved Developmentally Disabled persons. (Community-Based Care & Treatment)

(1) To increase the number of services, in the 1980-81 biennium, to provide 225 developmentally disabled persons including residential service alternatives, pre-vocational/vocational services, transportation services, respite services, follow-along and support, evaluation and diagnosis for adults in long term care facilities and institutions.
(2) To provide, during the 1980-81 biennium, the full continium of services for 82 adult developmentally disabled persons who are presently on waiting lists for entrance into community service programs.

d. During the 1980-81 biennium, design, develop, and initiate specialized community services for the most severly handicapped, developmentally disabled, including those with special medical needs, the profound and severly retarded, and those with multiple handicapping conditions. (Community-Based Care & Treatment)

(1) To conduct in cooperation with the Department of Health and Environmental Sciences and the Office of Superintendent of Public Instruction at least two (2) prevention workshops in each of the five administrative regions, serving a total of 250 people.
(2) To provide information through educational instruction and written materials that describes the causes of and suggests means to prevent developmental disabilities, for the distribution throughout Montana.
(3) To produce or gain access to media productions for public service advertising by television, radio, and newspapers, urging Montanans to avail themselves of appropriate pre-natal medical services.

The following narrative will give a brief description of Developmental Disabilities Division programs, budget, and staffing patterns. Purchase-of-Service Contracts have been established with 137 private providers for service/program delivery, while approximately 64 providers have been granted multi-contracts. These providers are in addition to state employees of the Division.

Habilitation and Evaluation Bureau

Residential Services

Description: Residential Services provides three types of living arrangments: Semi-Independent living, Foster home, and Community home. Semi-Independent living is a variably supervised situation oriented toward independent living; Foster home is a living arrangement with a family other than the natural family; and, a Community home is a supervised living situation which provides board and room in addition to focusing on developmental skills to prepare the DD for more independent living. Daily living training comprised of instruction in person care, self-help, and general skills needed for living in a community is supplied to the residents. The program is funded by Title XX and State funds.

Transportation Services

Description: Transportation Services enables clients to utilize generic and specialized services.

Vocational Services

Description: Vocational Services are a complex system of services directed toward productive work skills. Training ranges from pre-vocational skills, to specific vocational skills, to work activity, to sheltered employment, to employment by a vocational day activity, to contract work crews, to gain employment.

Treatment and Follow-Along Services

Description: Treatment and Follow-Along Services provide a continual point of contact for the client as to assure treatment plans are planned and implemented. Assistance may be provided in attaining services from other programs. i.e., schools, social services, mental health, etc.

Evaluation and Diagnostic Services

Description: Evaluation and Diagnostic Services provide clinical service to assess the level of development in terms of capability as well as deficiency. It generally involves a multi-disciplinary approach and in all instances provides detailed prescriptive reports.

Family Training and Resources

Description: Family Training and Resources are training services to assist family members in the training, care, and development of a child.

Pre-School or Day Care Services

Description: Pre-School or Day Care Services are center-based training services for children 0-5 years of age. Specialized training includes areas in speech, motor coordination, socialization skills, self-help skills, and some pre-school academics.

Management and Planning Bureau

Description: The Management and Planning Bureau provides the management information and comprehensive planning capability of the Division. In addition, this Bureau is responsible for providing consultation and guidance to the regional staffs and boards in terms of management and planning functions.

Management

Description: In addition to being the contact for Federal government and the Office of Budget and Program Planning, the major functions of the Management section are as follows:

1. Grants and contract management and monitoring.
2. Fiscal management, including liaison with SRS.
3. Budget development.
4. Conduct management studies.
5. Maintain a management information system.

Planning

Description: The major functions of the Planning section are as follows:

1. Prepare a State Plan with the State DD Council
2. Prepare DD portion of Title XX Plan.
3. Prepare DD portion of Health System Agency Plan.

Proposed Total Division Budget, FY 1979:

	State Funds	Federal Funds
Title XX	-0-	$3,192,262
Title XX (Training)	-0-	375,000
General Fund	$4,903,200	

($7,176,870 of the above funds are contract funds)

Staffing: 41 FTE's

APPENDIX VII

PUBLIC HEARING NOTICES

PUBLIC HEARING NOTICES

Notices of the public hearing held in Helena were placed in five regional major newspapers in Montana thirty days prior to the hearing. They were:

Region I - Miles City Star

Region II- Great Falls Tribune

Region III - Billings Gazette

Region IV - Butte Standard and
Helena Independent Record

Region V - Missoulian

An example of the notice follows:

Notice of Public Hearing

A public meeting on the Montana State Health Plan of the Statewide Health Coordinating Council and the State Planning and Resource Development Agency will be conducted April 19, 1979, at 10 a.m. in the Colonial Inn, Helena, MT.

Copies of the State Health Plan will be available after April 4 from the State Planning and Resource Development Agency, Cogswell Building, Helena, MT. Phone 449-3121.